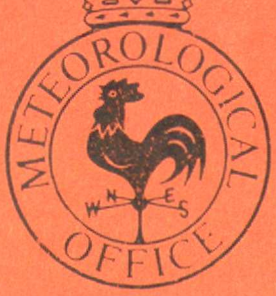
Monthly and Seasonal Mean Analyses

September, October, November
1988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Monthly and Seasonal Mean Analyses

September, October, November 1988

Mean fields obtained from the archive of operational analyses

Met O 20 (Dynamical Climatology Branch)
Meteorological Office
London Road
Bracknell
Berkshire RG12 2SZ

December 1988

Note: Permission to quote from this document should be obtained from the Assistant Director of the above Meteorological Branch.

Monthly and Seasonal Mean Analyses

Introduction

The archive of operational analyses contains a continuous record of global analyses every 12 hours (00 and 12 GMT) from May 1983 onwards. They are copies of the update analyses produced in the operational numerical weather prediction system using the 15-level model (Bell and Dickinson 1987). In this booklet there are presented monthly and seasonal mean fields computed from the archived analyses for a single season. Since a season spans three calendar months, there are four sections. Sections 1, 2 and 3 contain charts of the monthly mean fields for each month, and section 4 contains charts of the seasonal mean fields. The seasonal means are the means of the fields in the first three sections, weighted according to the number of days in each month.

Each section contains a set of charts for the northern and southern hemispheres and a set for the tropics. In each hemisphere, polar stereographic projects have been used to prepare a chart of pressure at mean sea level and composite charts showing both height (contours) and wind (vectors and isotachs) at 850, 500, 250 and 100 mb. In the tropics the charts are presented on a latitude–longitude projection encircling the globe in three sections covering the longitudes 0°–120°E, 120°E–120°W and 120°W–0°. This projection has been used to produce a series of charts of wind vectors and isotachs at 850 and 250 mb. On all charts, contours are depicted as solid lines, wind vectors as arrows and isotachs as dashed lines.

When archiving was first undertaken, for May 1983, global fields were stored according to their coefficients in a series of spherical harmonics up to a triangular truncation of T40 (Swinbank 1984). Since this is roughly equivalent to a latitude–longitude grid with a resolution of 4.5° by 4.5°, the conversion from the model's standard grid of 1.5° by 1.875° to the spectral representation results in some smoothing of the fields. Subsequently, a new method for storing the archived fields was developed as a result of discussions within the Working Group on the Development of the Operational Suite (WGDOS). This method uses a compressed digital coding of the original model field, on its standard latitude–longitude grid, but with fewer significant figures (Lowther 1986). It was implemented on 18 December 1985 in a limited version. After the inclusion of more fields, and following monitoring to ensure that the two representations (i.e. truncated spectral and compressed grid-point) of the archived analyses were consistent, the spectral archive was terminated on 31 October 1986.

The contents of the archives may be examined by consulting the computer data set 'M20.NARCHIND', where the tape number, file number and data set name for each archived day may be found. The fields in the spectral archive are stored in the format required by the post-processing (p-p) package. Details of the format and of the subroutines to be used for accessing the data are described in the manual for the p-p package. Some examples are shown in Swinbank (1984). The fields in the daily grid-point archive are stored as printfiles (Lowther 1986). A list of the fields in each of the two versions of the daily archive is given in the relevant documentation.

The monthly and seasonal mean fields have been computed from the spectral archive up to the end of October 1986. Thereafter, they have been computed from the grid-point archive. The mean fields are held as computer data sets in Met O 20, in spectral or grid-point format, as appropriate, and are available for general use. Means for each month and season over three years of the spectral archive are also available. The mean fields that are held are as follows:

Field		Pressure level (mb)
Westerly wind component	(m/s)	
Southerly wind component	(m/s)	1000*, 850, 700, 500, 400, 300,
Height	(dam)	250, 200, 150, 100, 70, 50
Temperature	(K)	
Relative humidity	(%)	1000*, 850, 700, 500, 400, 300
Pressure at mean sea level	(mb)	

* Fields at 1000 mb are held in the spectral archive. In the grid-point archive this level has been omitted and fields at 950 mb are held instead.

References

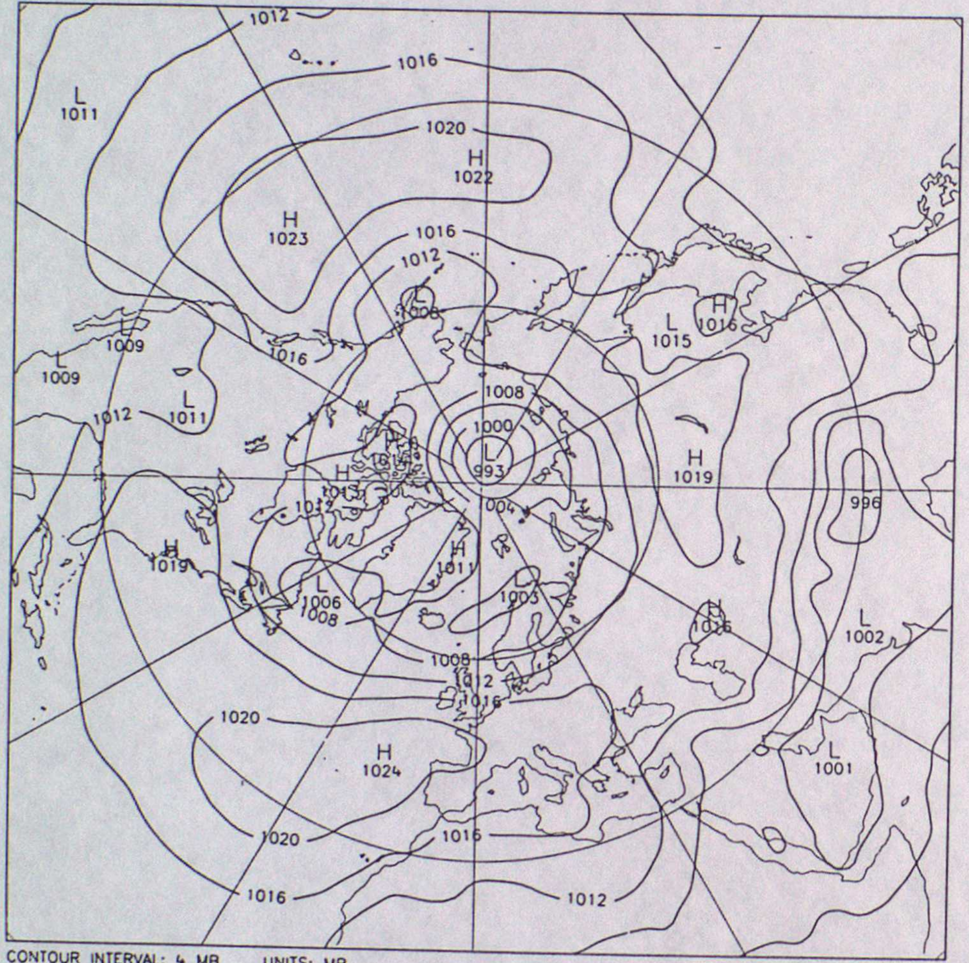
Bell, R.S. and Dickinson, A. 1987 The Meteorological Office operational numerical weather prediction system, Meteorological Office Scientific Paper No. 41, Met.O.979, HMSO.

Lowther, D. 1986 WGDOS Printfile Archive, Operational NWP Scheme, Documentation Paper No. 9.1, Met O 2b, Meteorological Office, Bracknell.

Swinbank, R. 1984 A system to archive operational analyses for research purposes. Met O 20 Technical Note No. II/218. Meteorological Office, Bracknell.

SEPTEMBER
1988

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1988
PMSL
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
SEA LEVEL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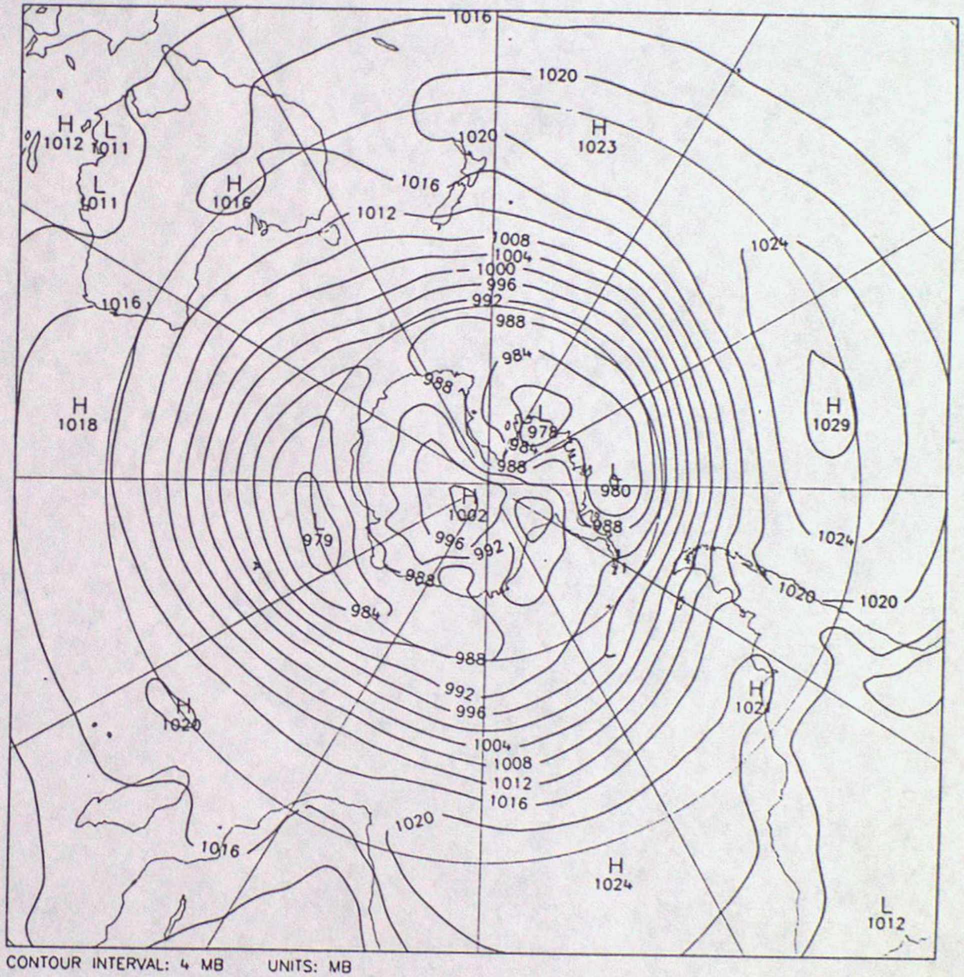
L 1003
H 1016
L 1002
H 1024
L 1001

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1988
PMSL
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
SEA LEVEL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H 1024
L 1012

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
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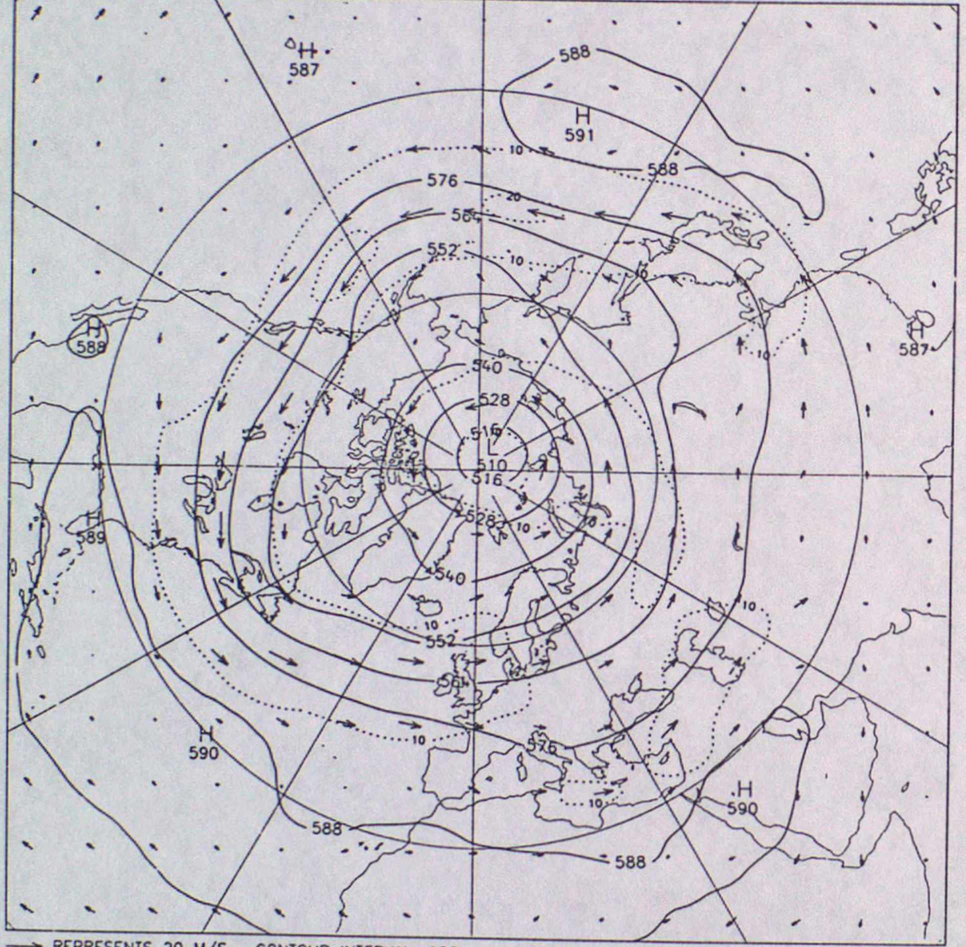
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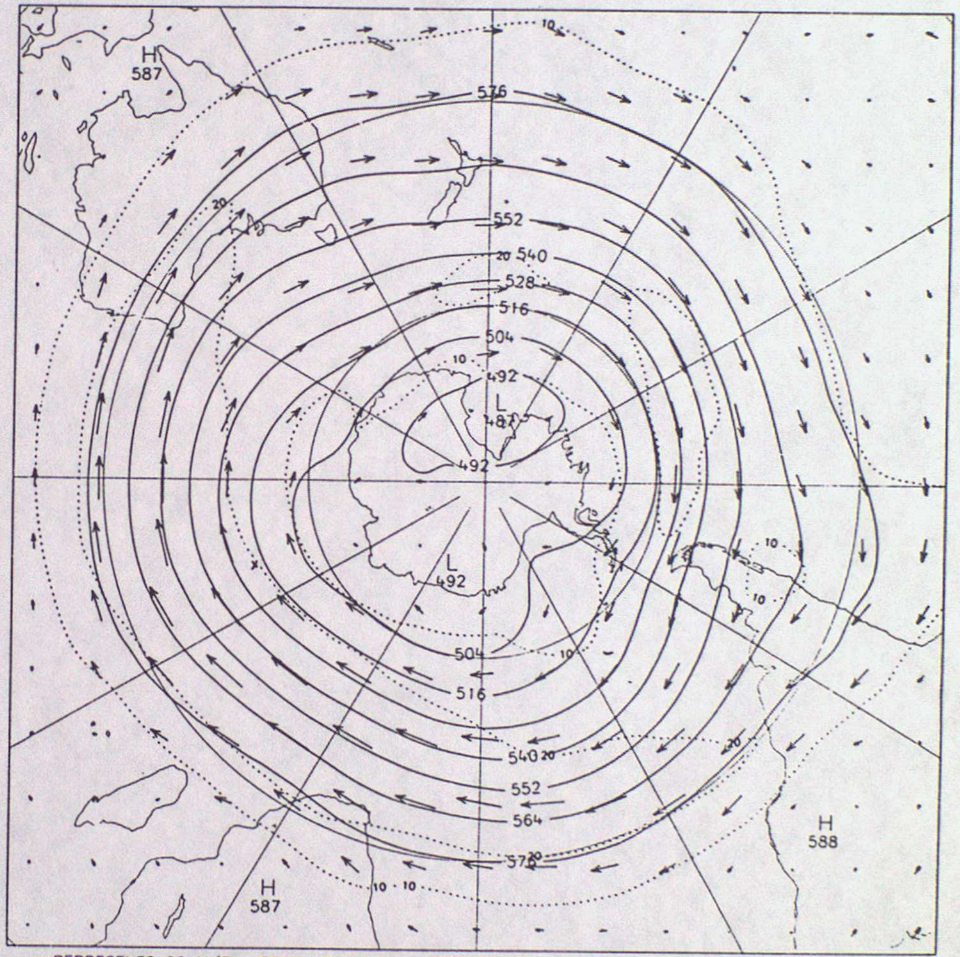
552
564
H
590
576
H
590
588
588
10
20

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
LEVEL: 500 MB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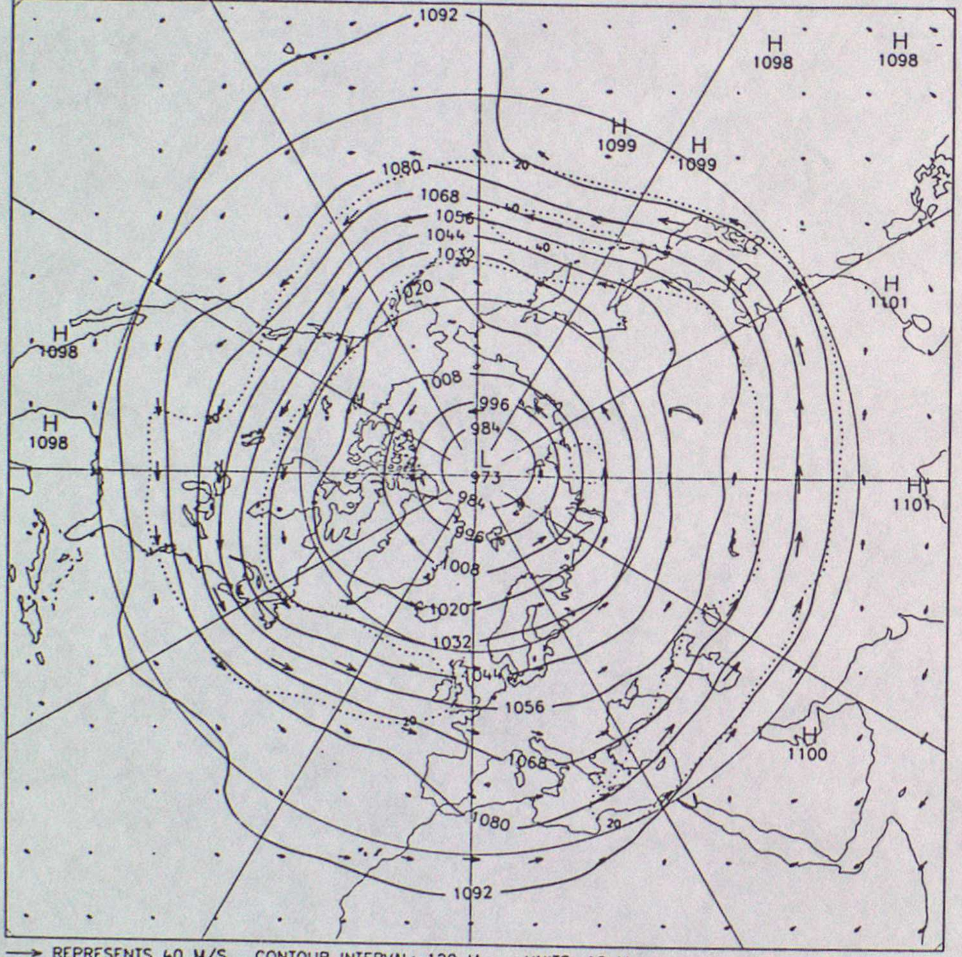
588
H
587
10
20

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
LEVEL: 250 MB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H 1098
008
996
984
L 973
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996
1008
1020
1032
1044
1056
H 1101
H 1100
1068
1080
20
1092

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
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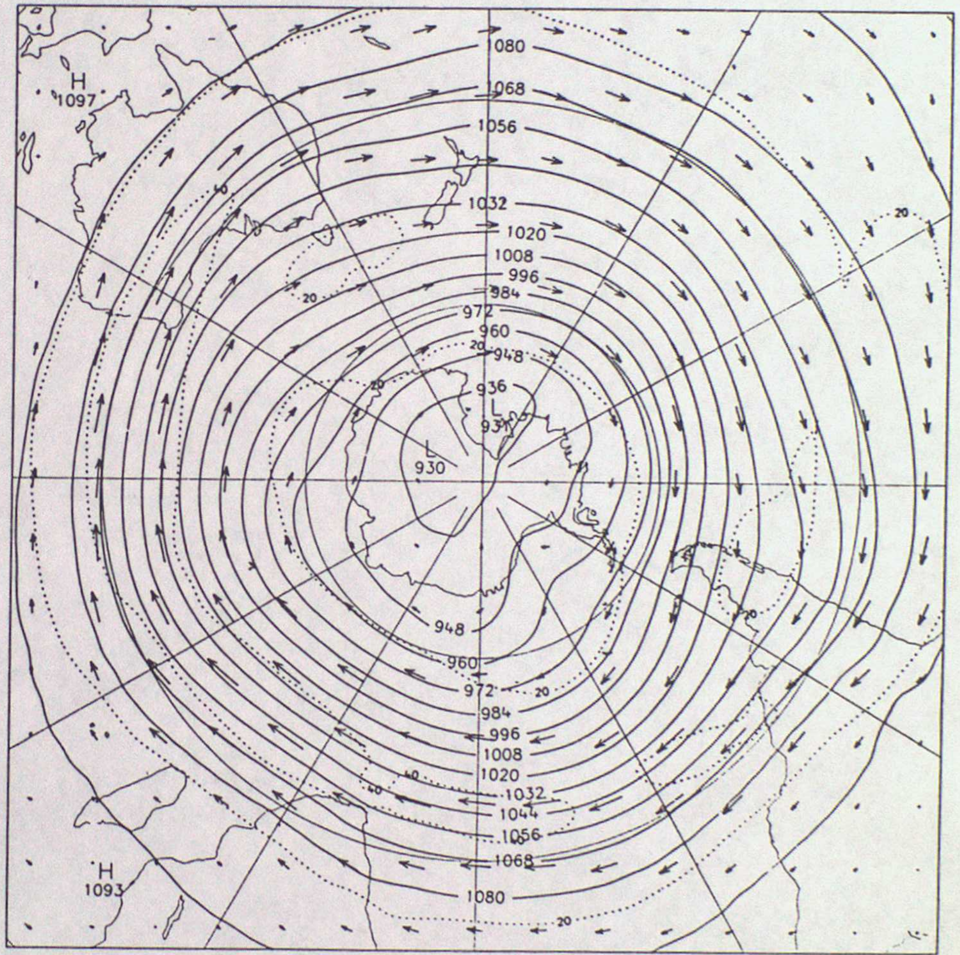
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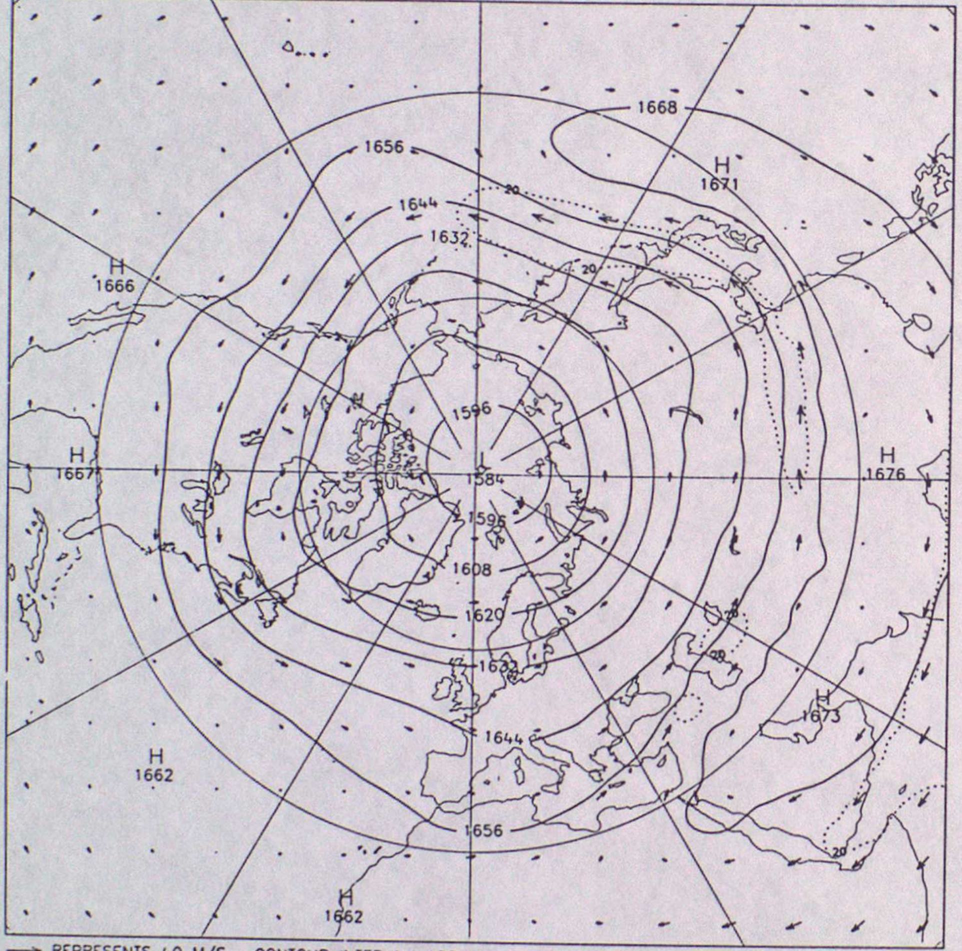
960
972
984
996
1008
1020
1032
1044
1056
1068
1080
20
H 1093

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   SEPTEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
LEVEL: 100 MB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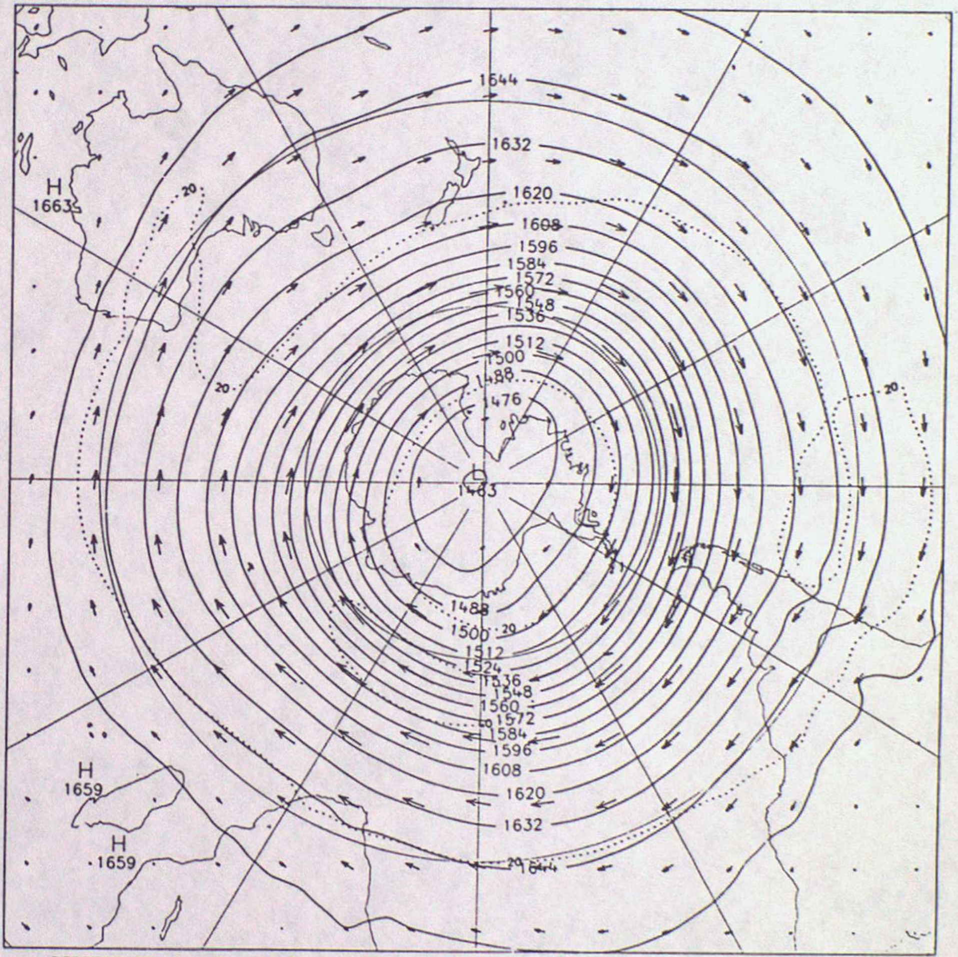
H 1673
H 1662
H 1662

→ REPRESENTS 40 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   SEPTEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
LEVEL: 100 MB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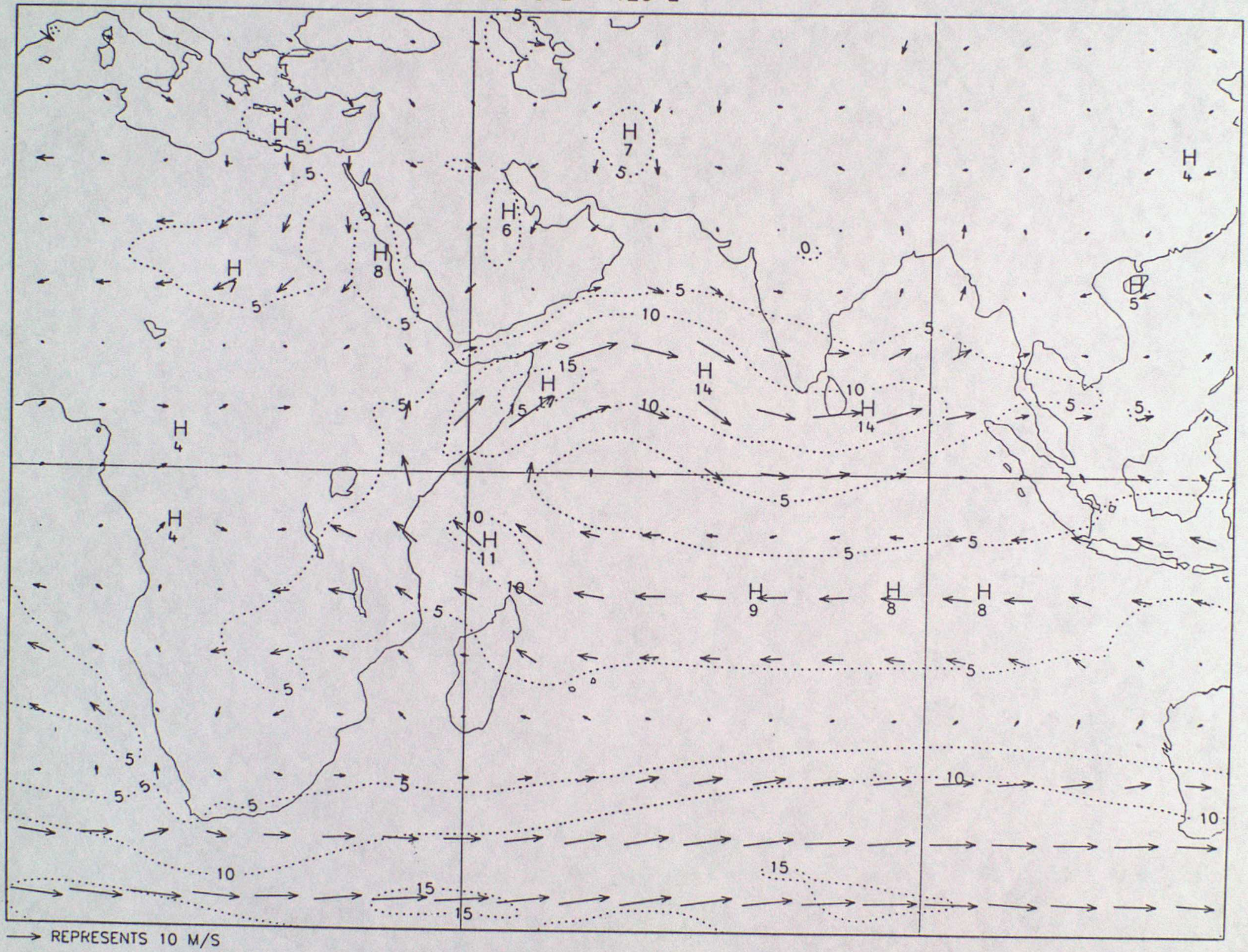
H 1659

→ REPRESENTS 40 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
850 MBS. BETWEEN LONGS. 0 E - 120 E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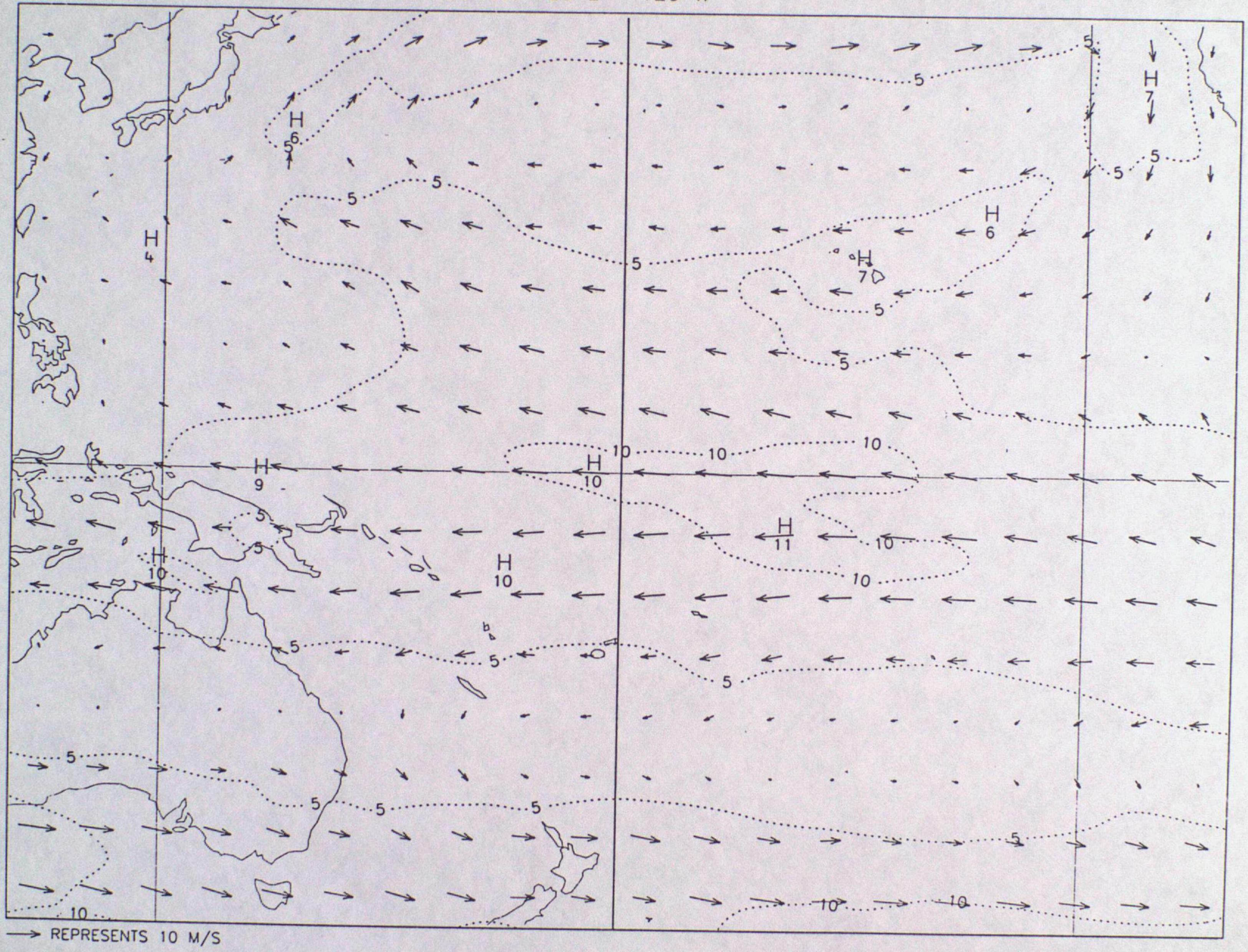
H 8
5
10
15
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   SEPTEMBER 1988
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
850 MBS.   BETWEEN LONGS. 120 E - 120 W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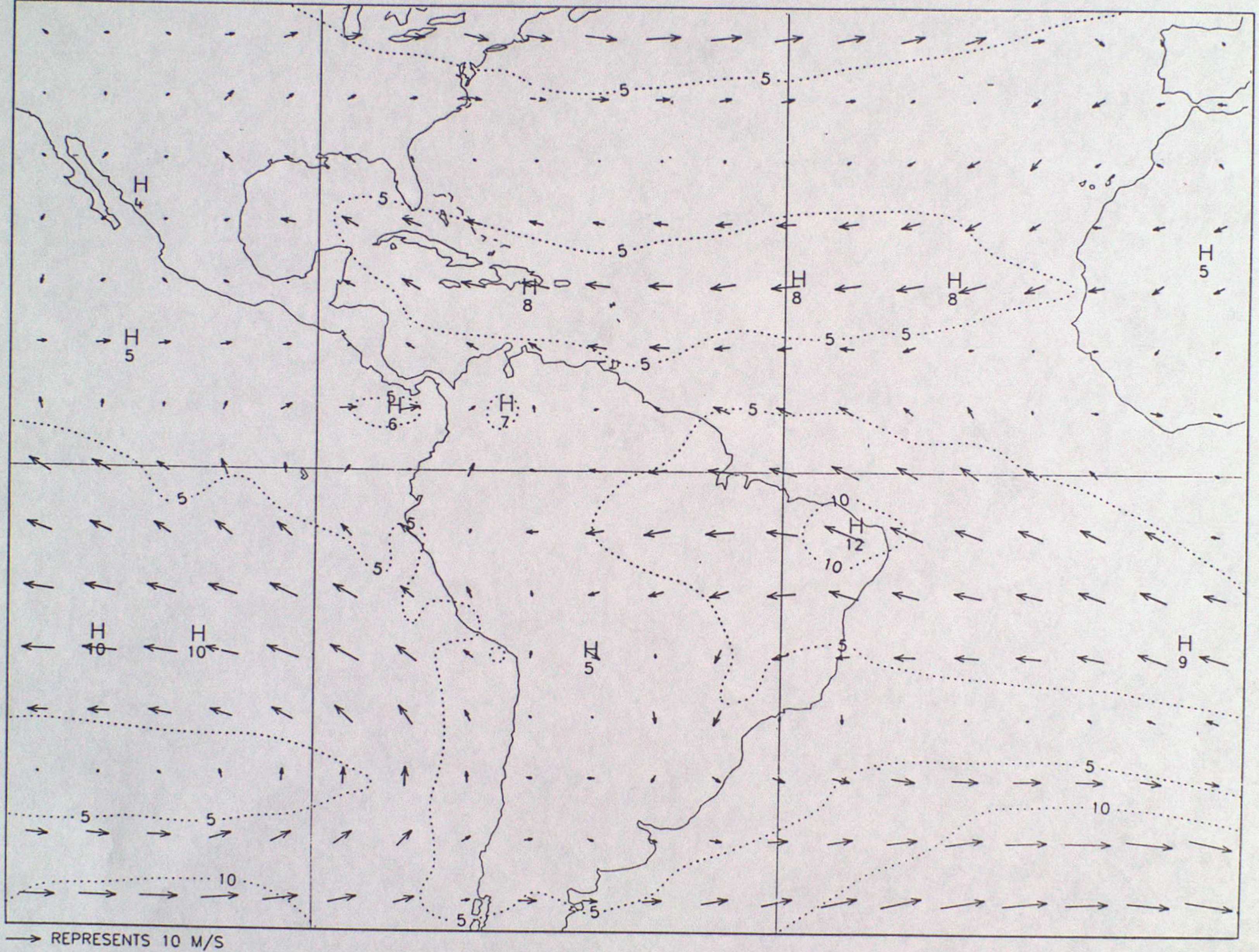
10
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   SEPTEMBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
850 MBS.   BETWEEN LONGS. 120 W - 0 W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H 5
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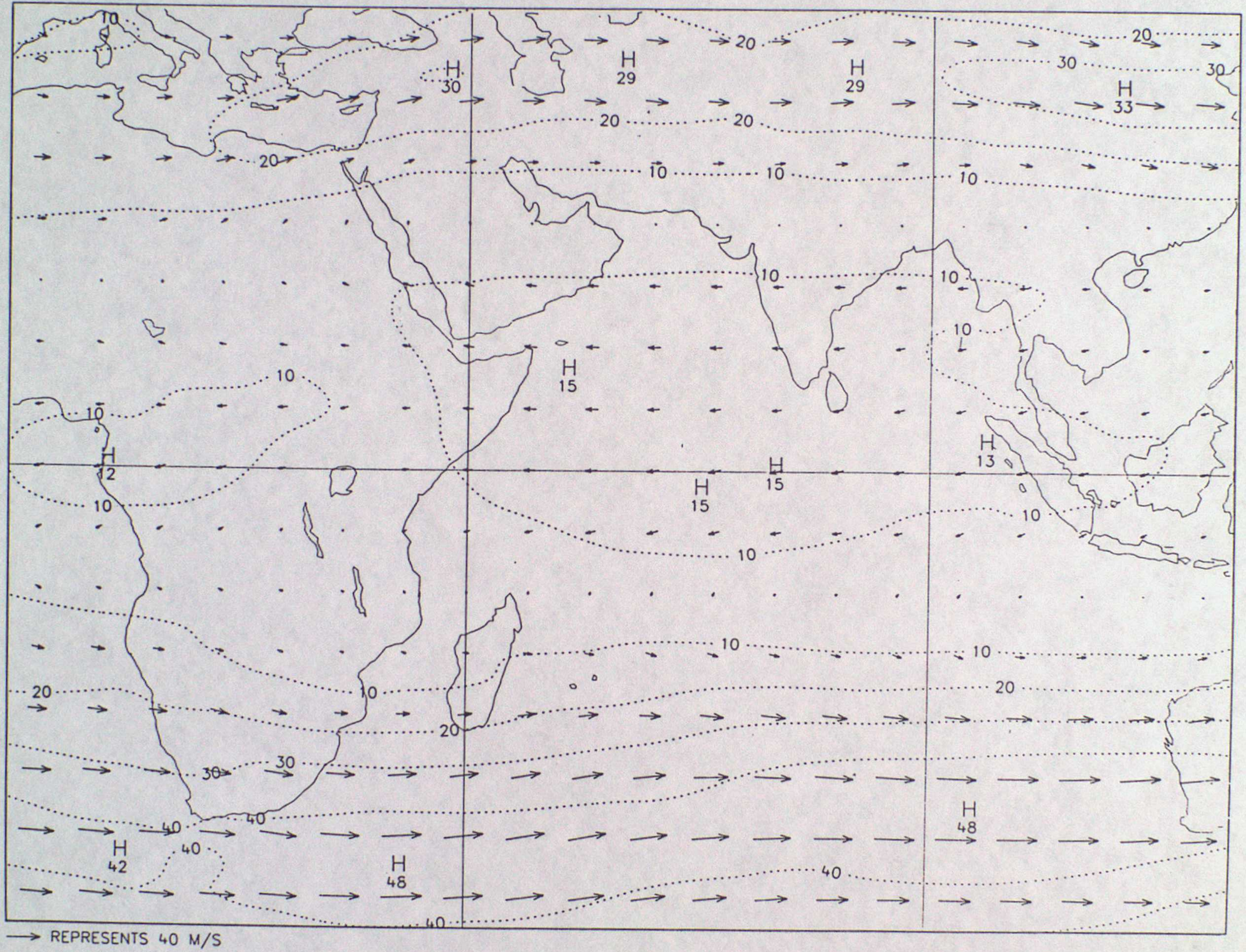
H 9
5
10

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
250 MBS. BETWEEN LONGS. 0 E - 120 E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→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
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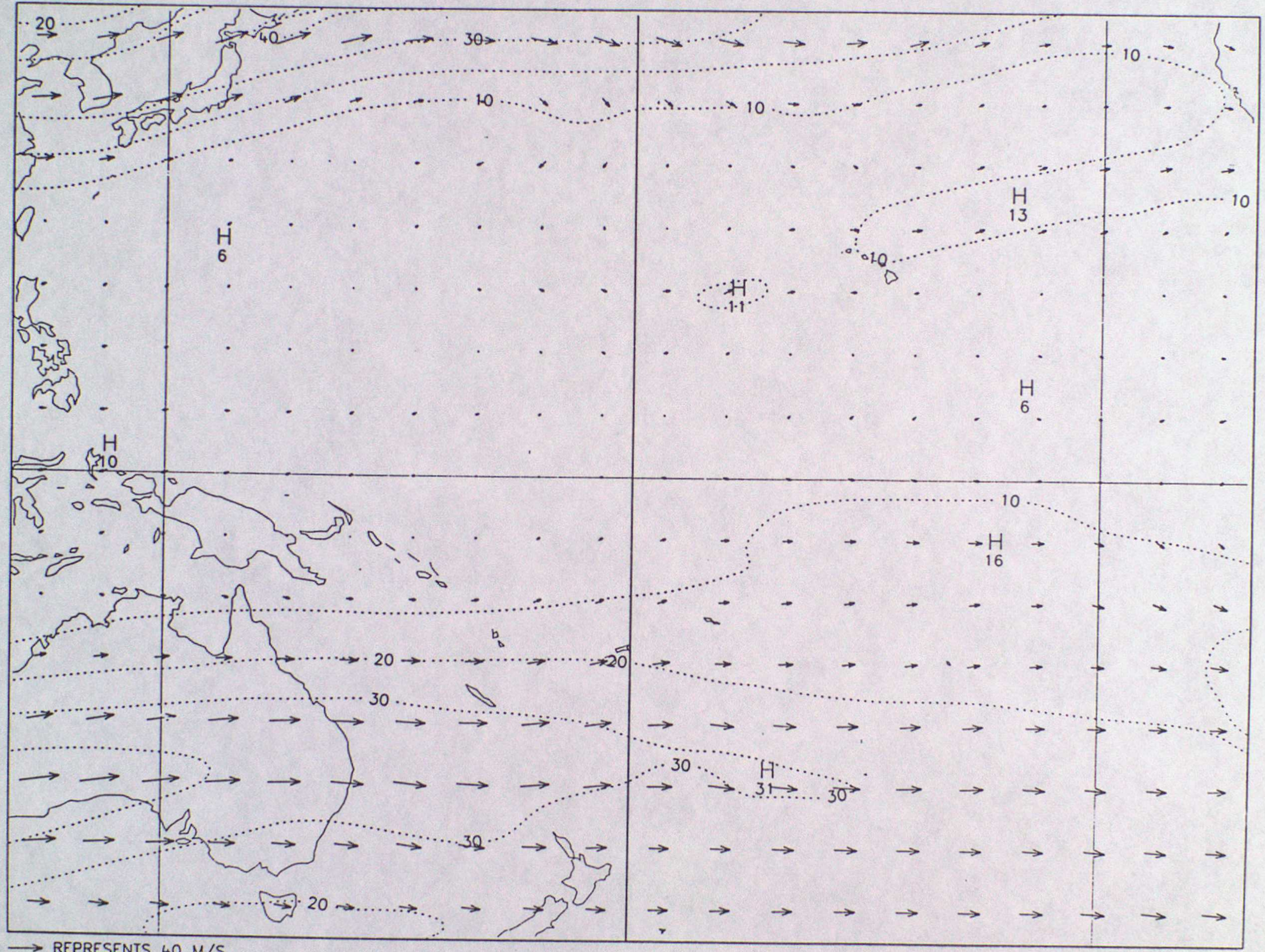
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31
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30
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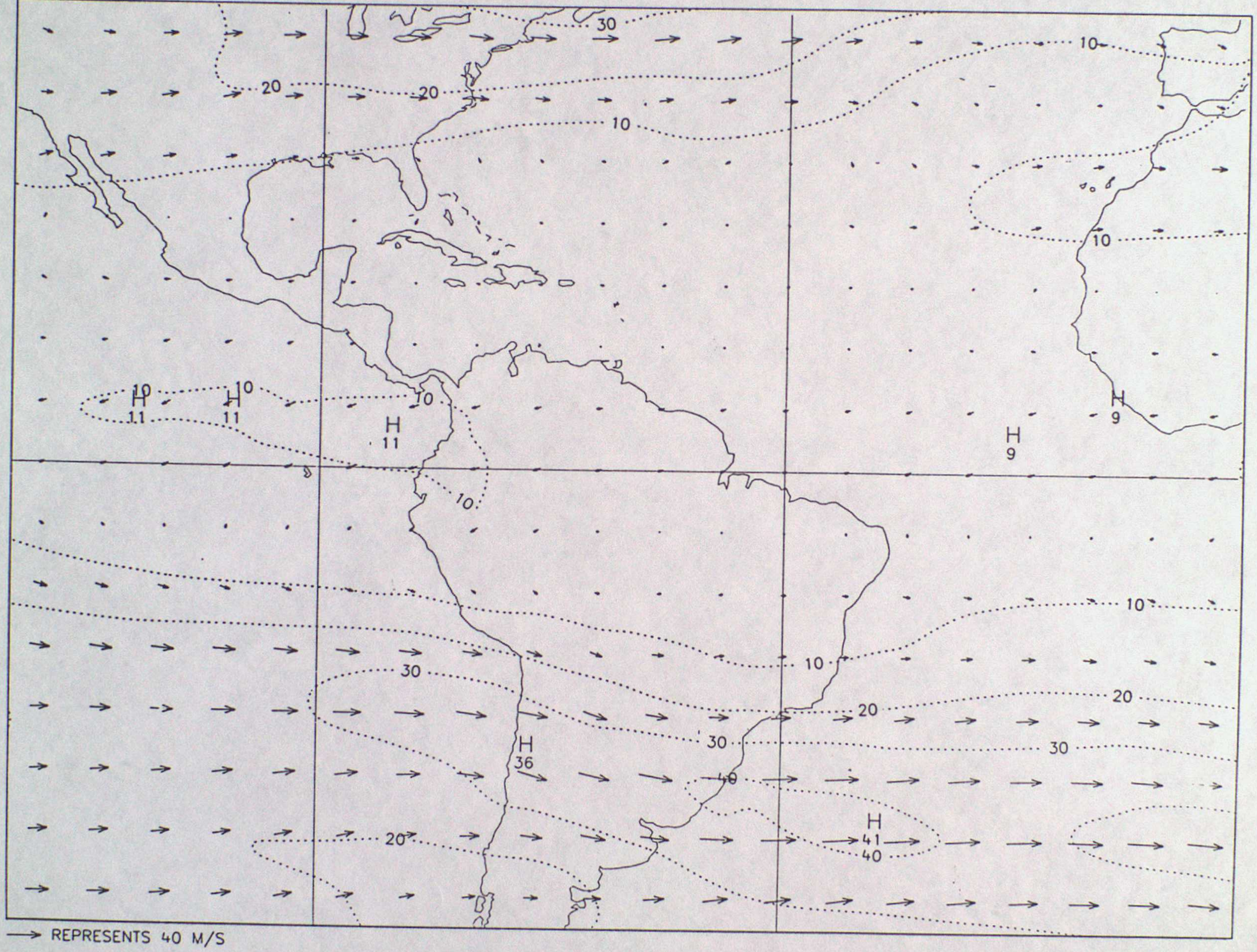
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. SEPTEMBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/9/1988 DAY 274
250 MBS. BETWEEN LONGS. 120 W - 0 W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H 36
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H 41
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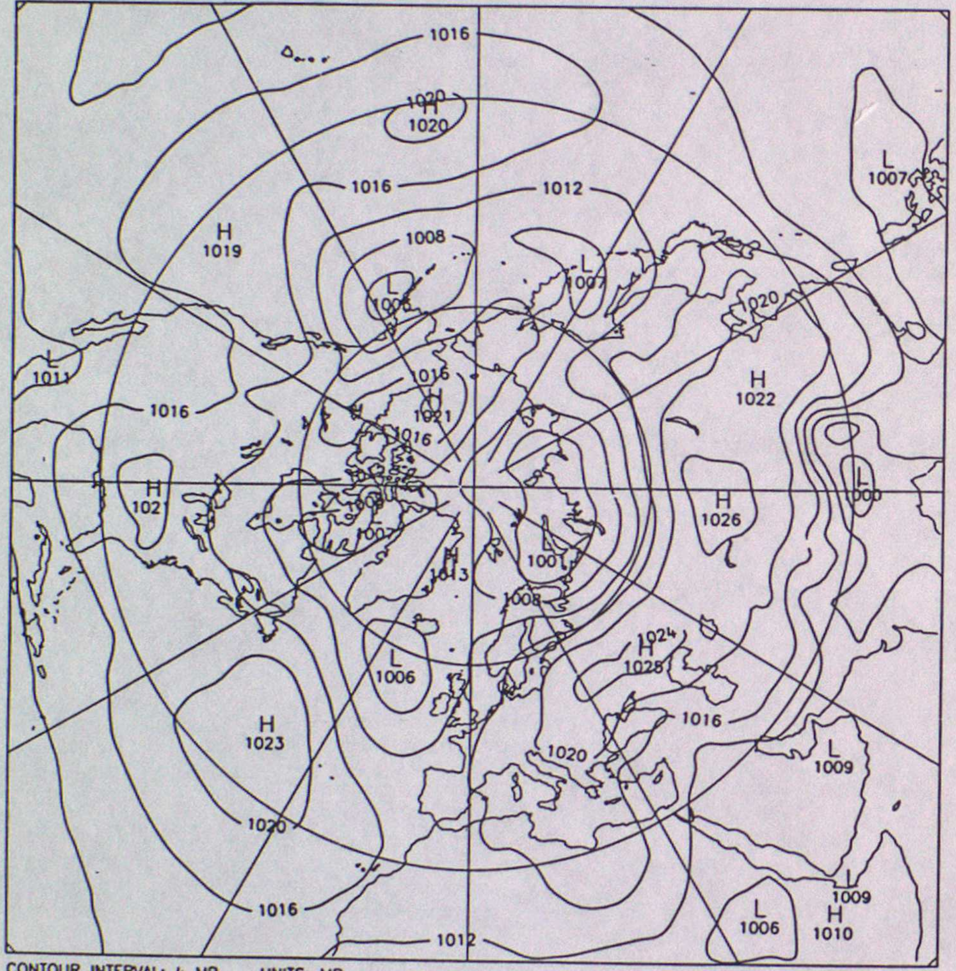
20
→ REPRESENTS 40 M/S

OCTOBER
1988

OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
PMSL
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
SEA LEVEL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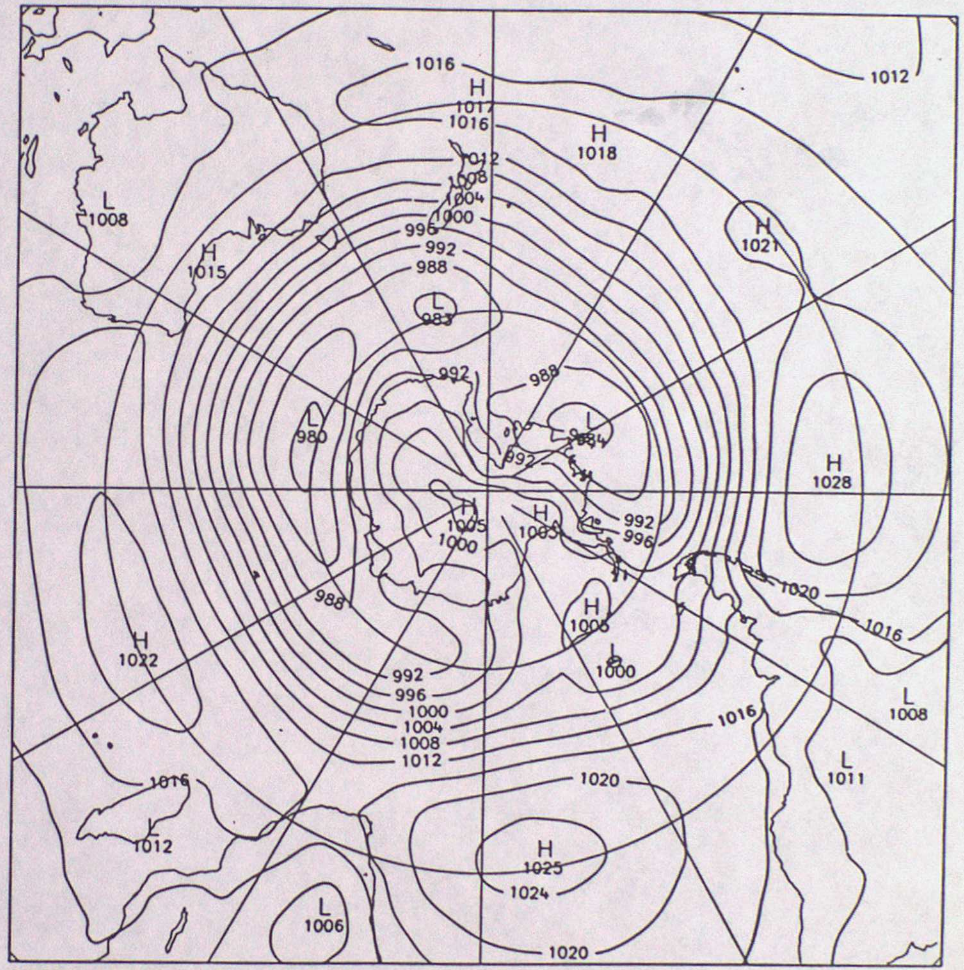
CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
PMSL
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
SEA LEVEL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CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
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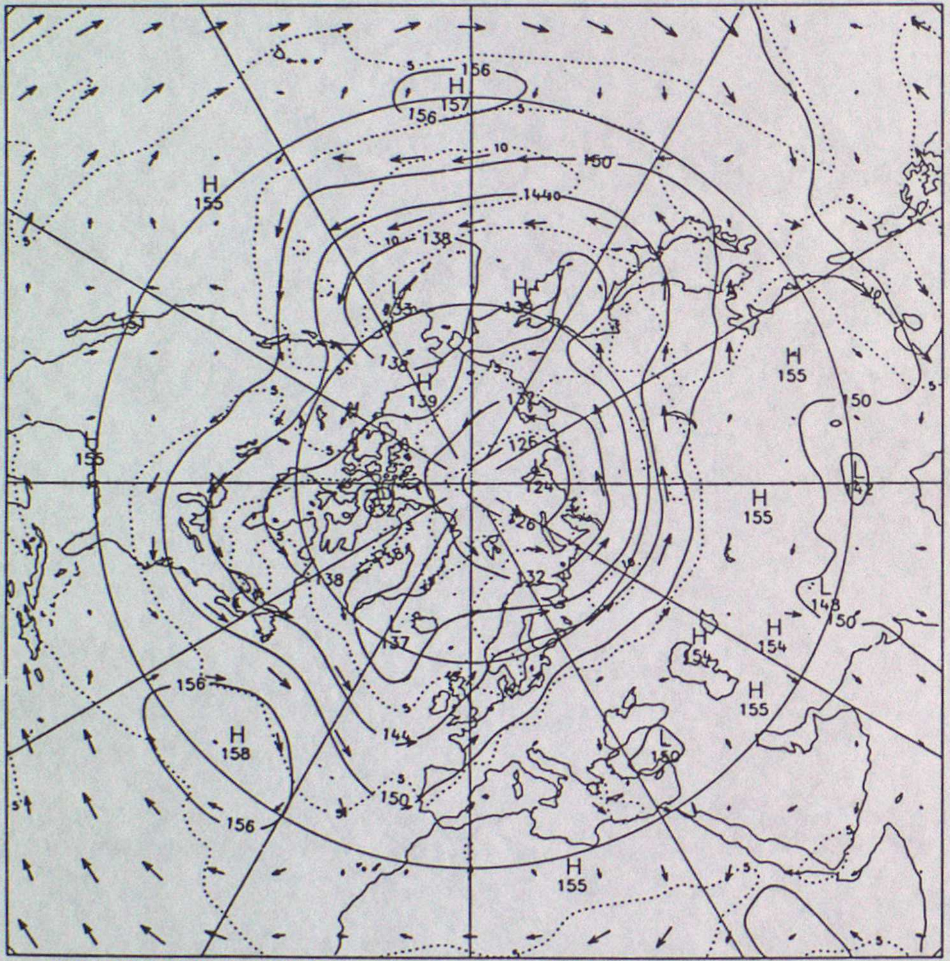
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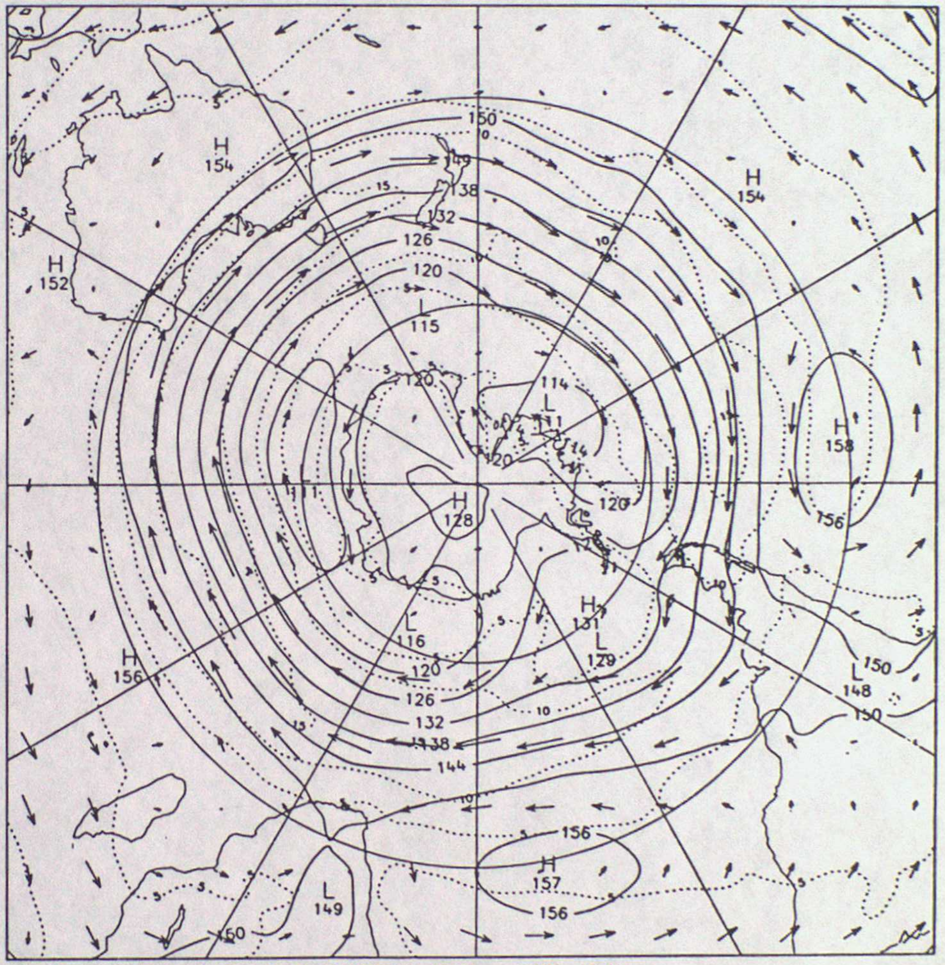
L 150
H 158
156
144
137
H 155
H 155

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
LEVEL: 850 MB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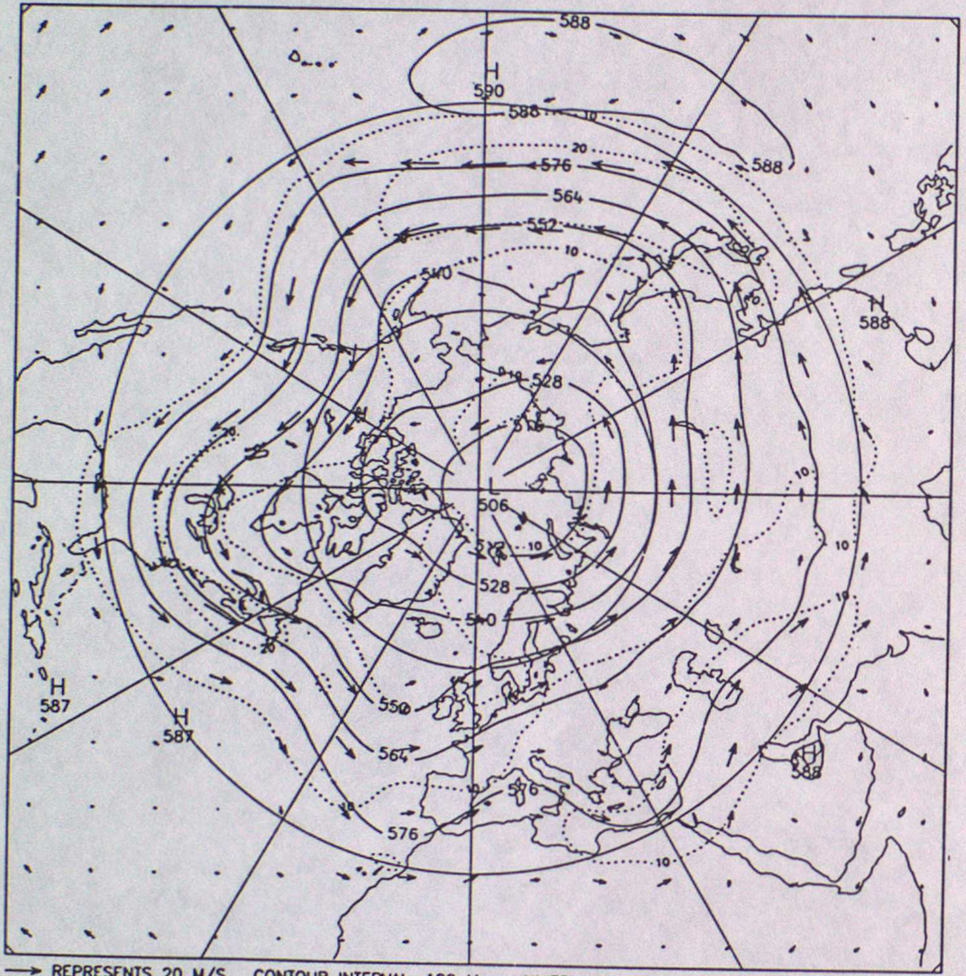
L 148
144
L 149
H 157
156

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
LEVEL: 500 MB



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10
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587
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587
588

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
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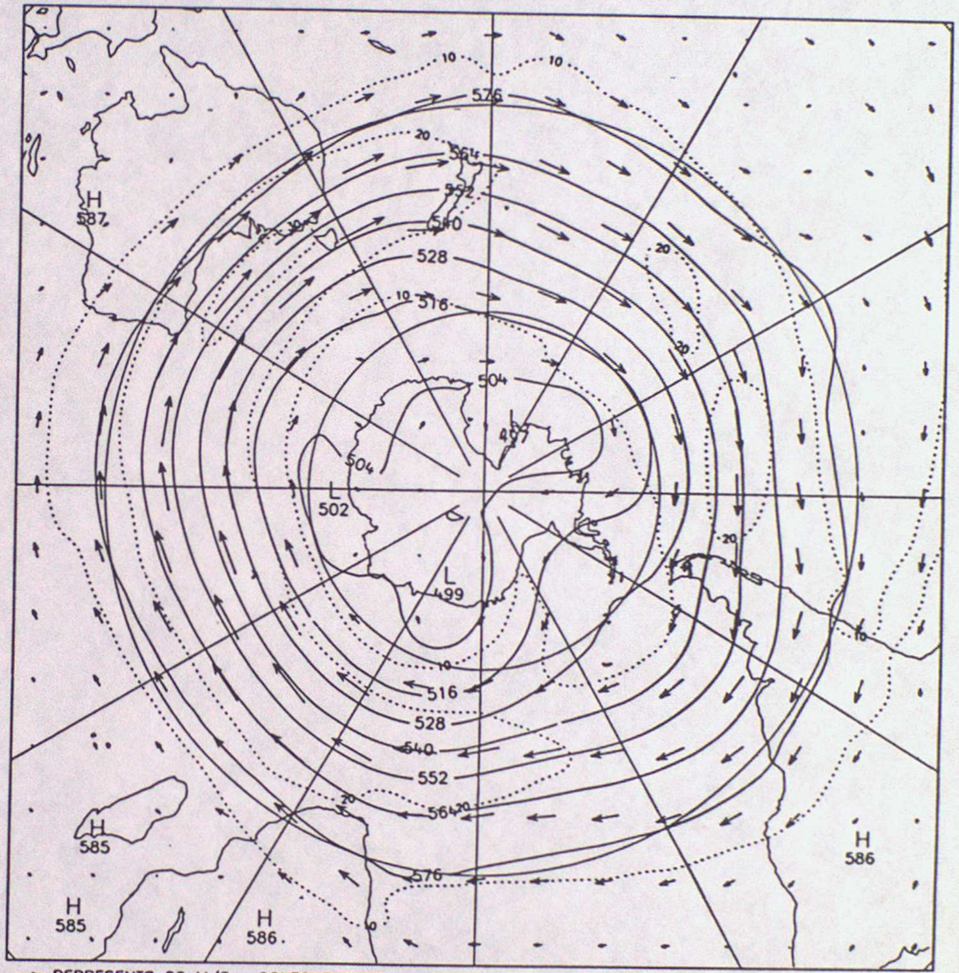

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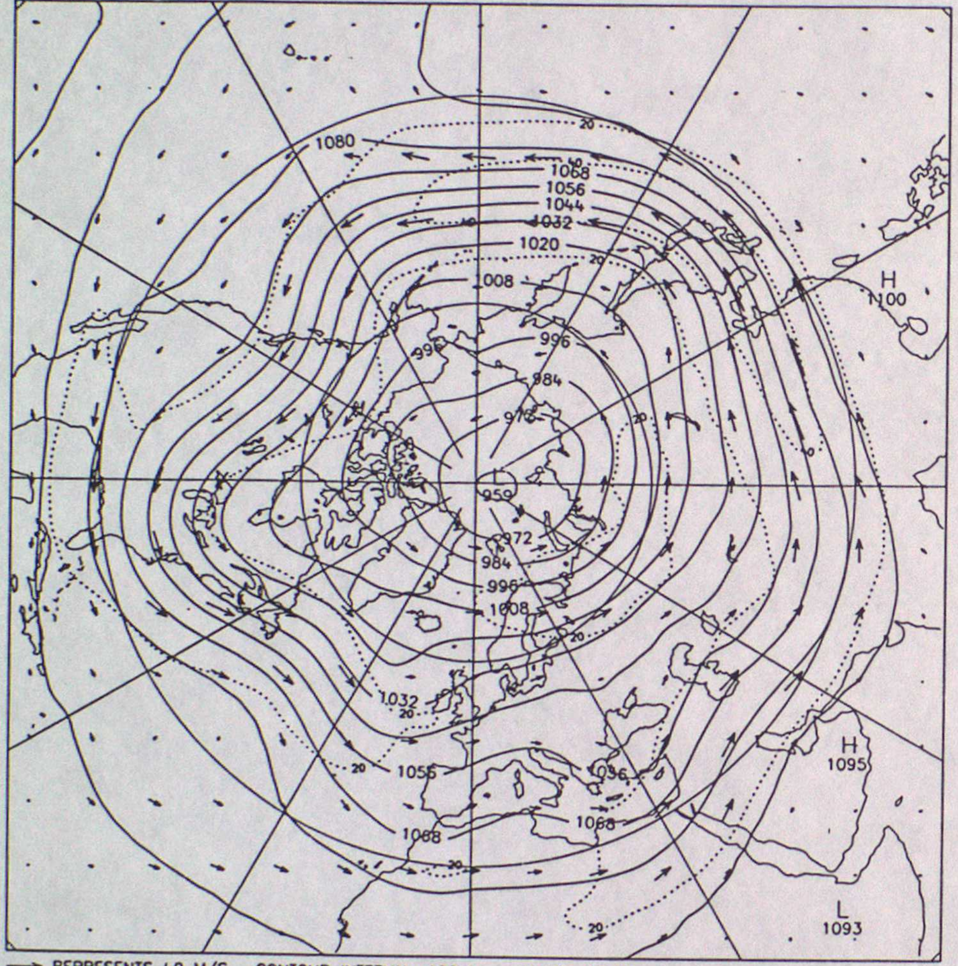
586

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
LEVEL: 250 MB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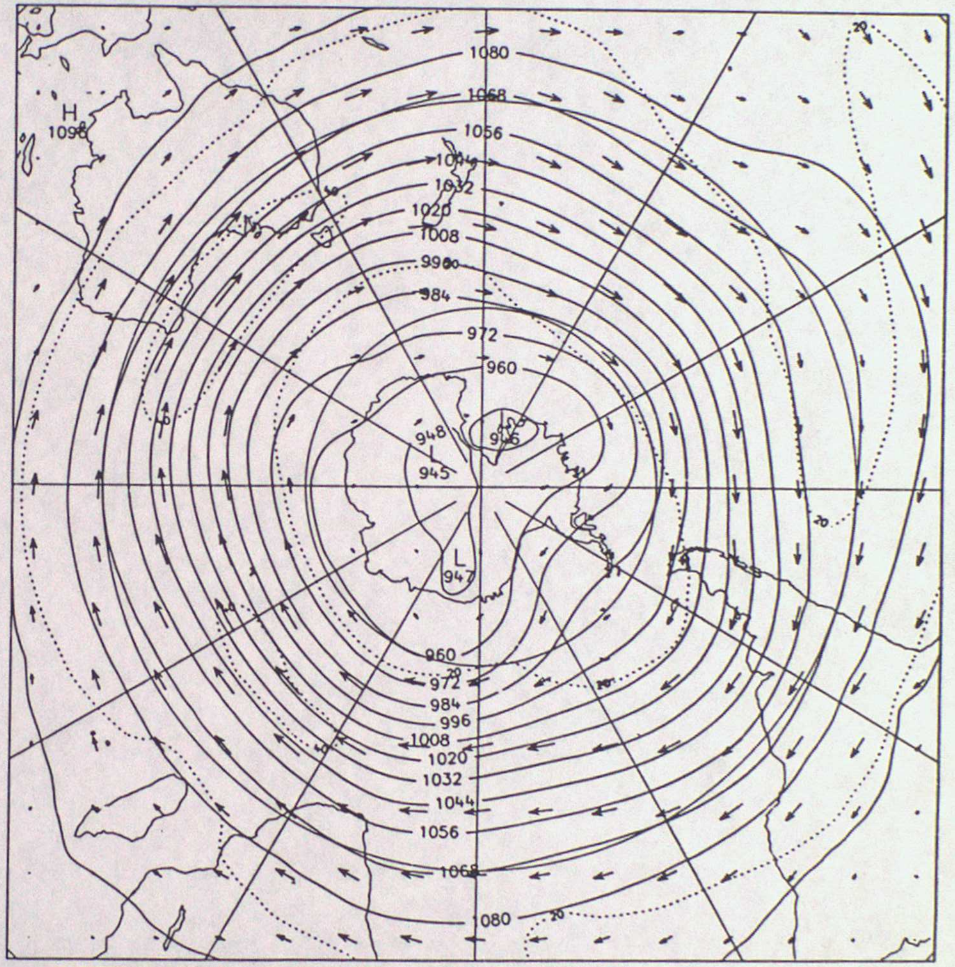
1068
H
1100
H
1095
L
1093
20
40

→ REPRESENTS 40 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
LEVEL: 250 MB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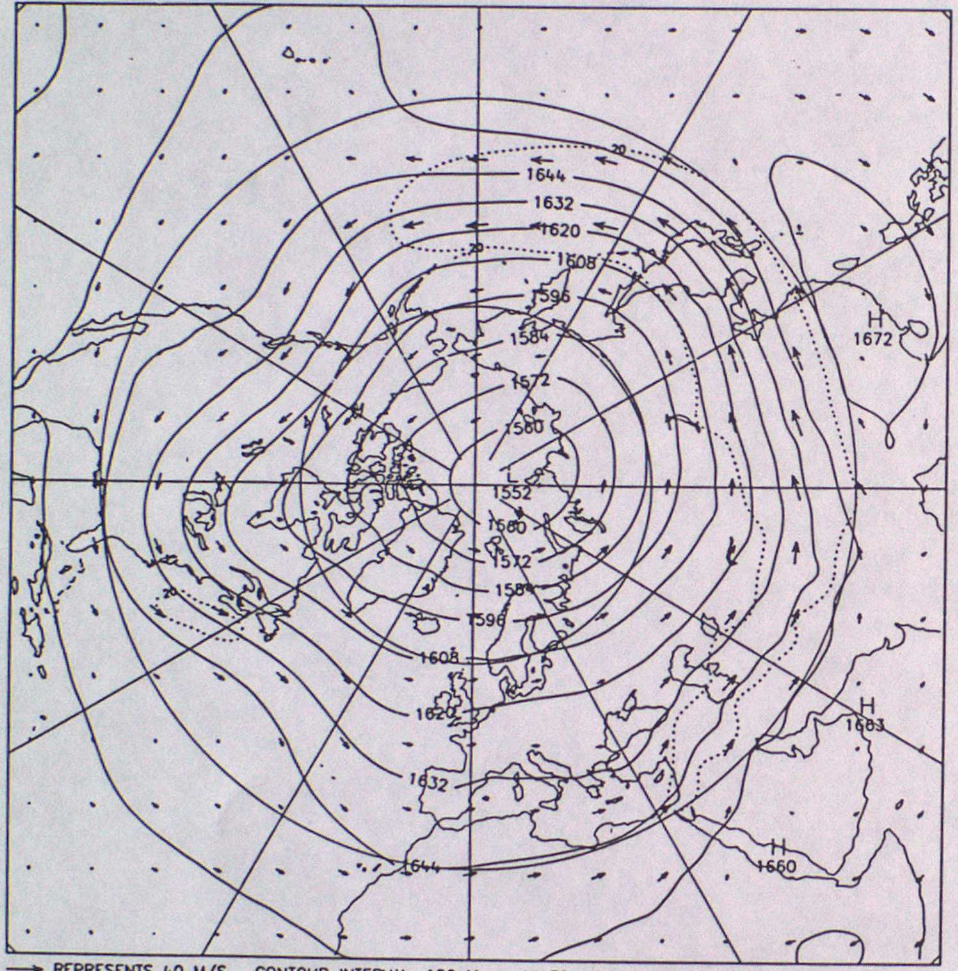
972
984
996
1008
1020
1032
1044
1056
1068
1080
20
40

→ REPRESENTS 40 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
LEVEL: 100 MB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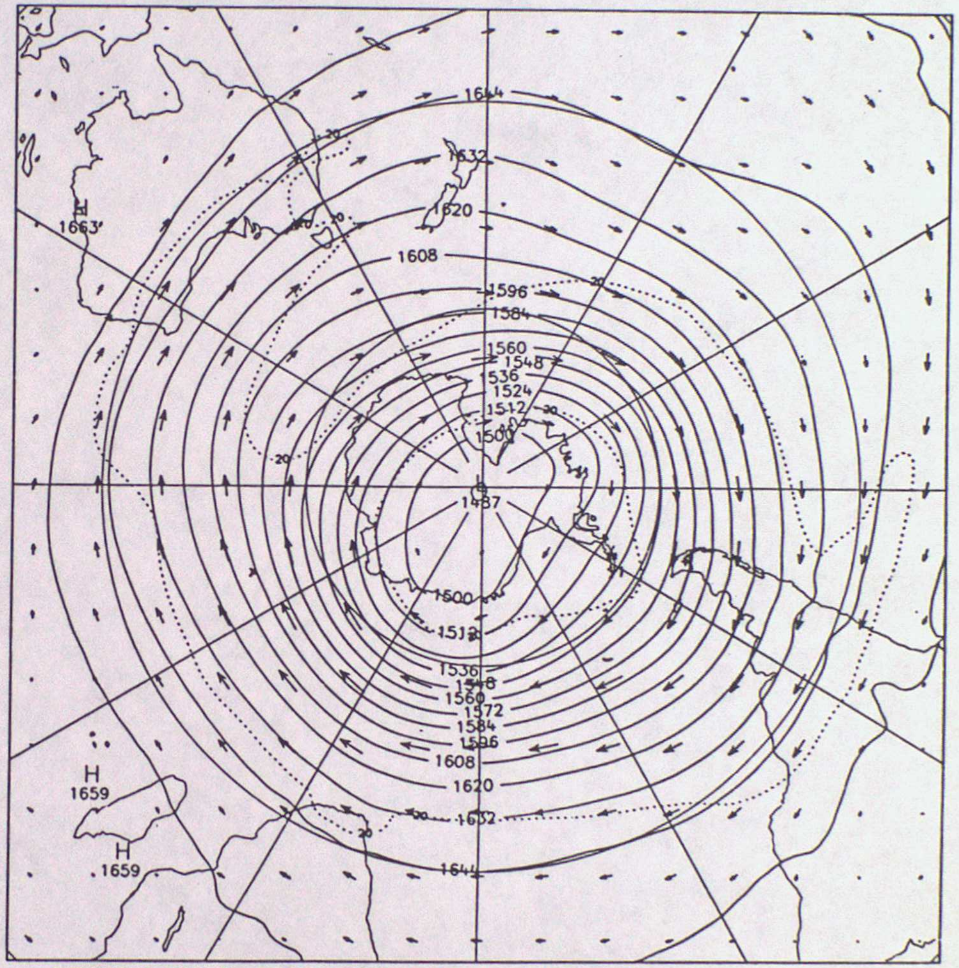
1632
1644
20
H
1672
H
1663
H
1660

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
LEVEL: 100 MB


1644
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1608
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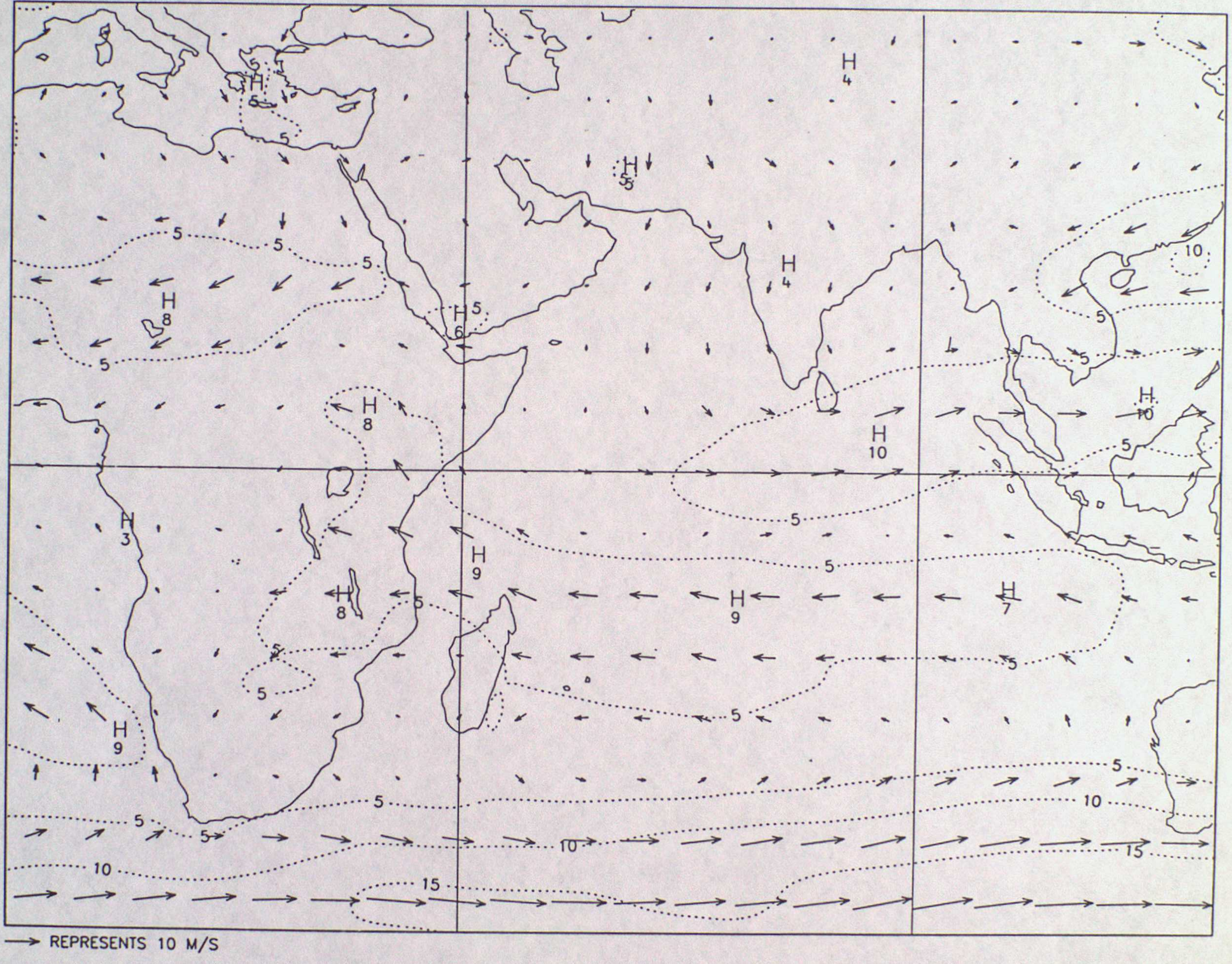
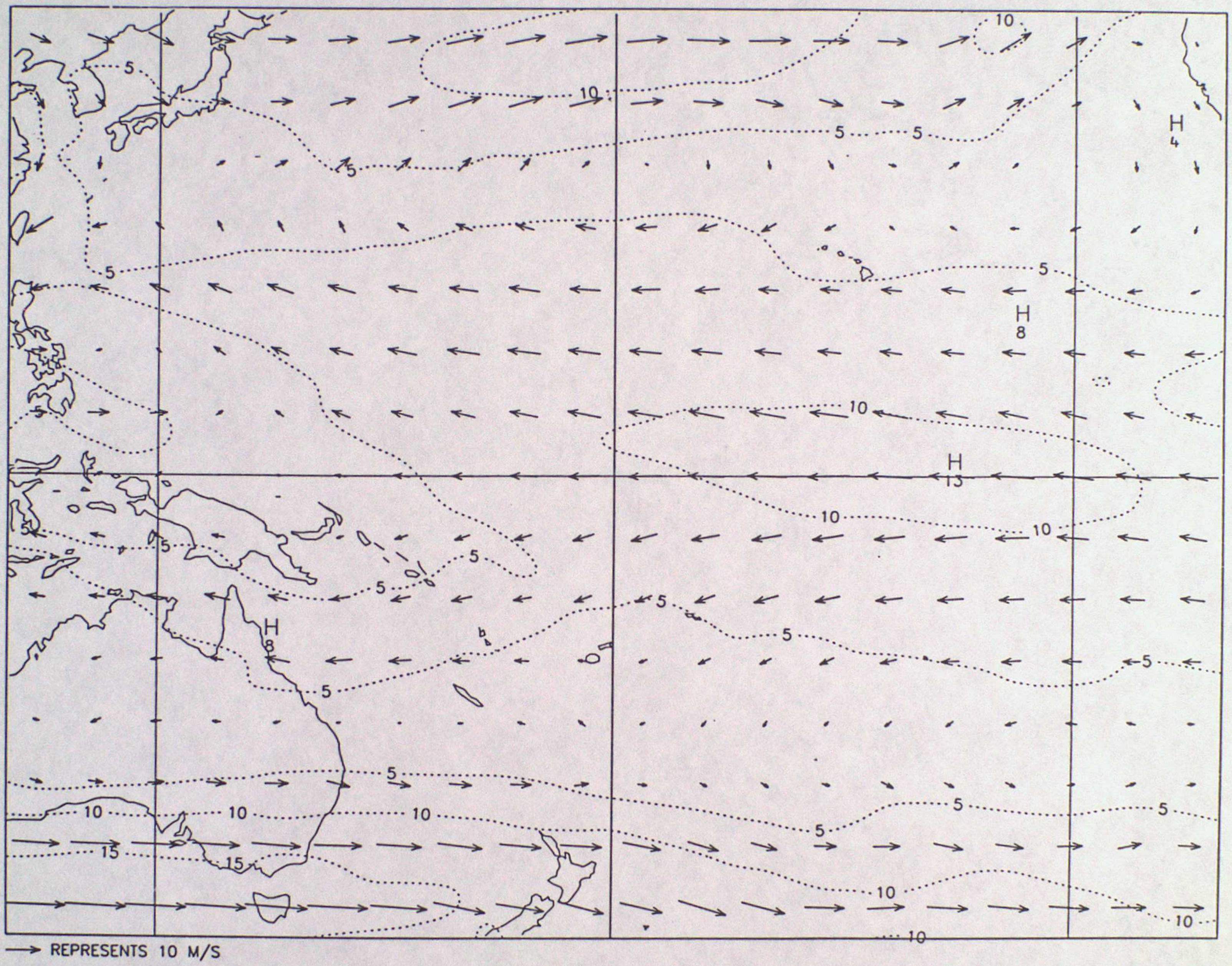
1584
1560
1548
1536
1524
1512
1500
L
1487
1500
1512
1536
1548
1560
1572
1584
1596
1608
1620
1632
1644
20
H
1663
H
1659
H
1659

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

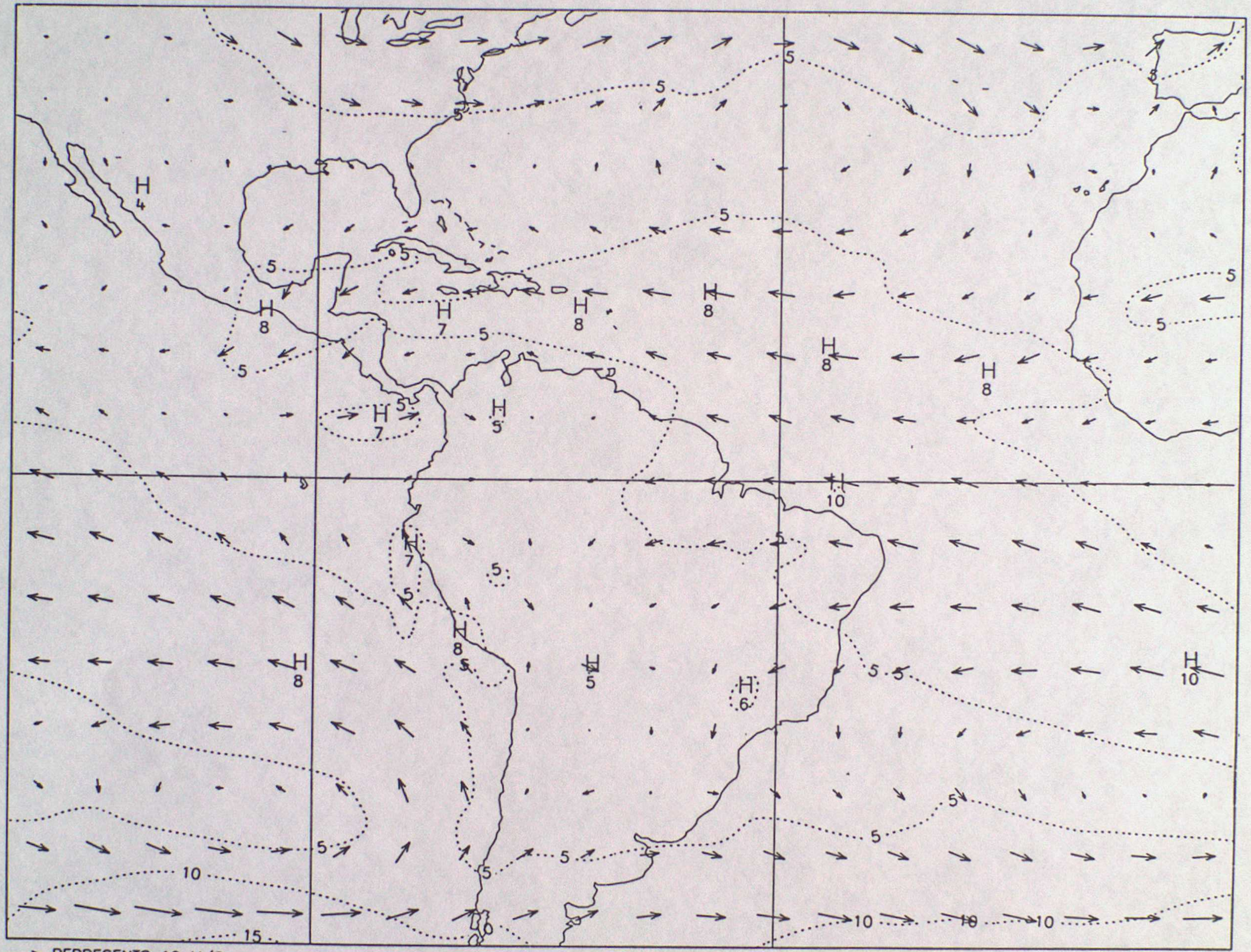
OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
850 MBS. BETWEEN LONGS. 0 E - 120 E


H 4
H 5
H 4
H 8
H 6
H 10
H 8
H 10
H 3
H 9
H 8
H 9
H 7
H 9
L
5
10
15
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
850 MBS. BETWEEN LONGS. 120 E - 120 W


H 4
H 8
H 13
H 8
5
10
15
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
850 MBS. BETWEEN LONGS. 120 W - 0 W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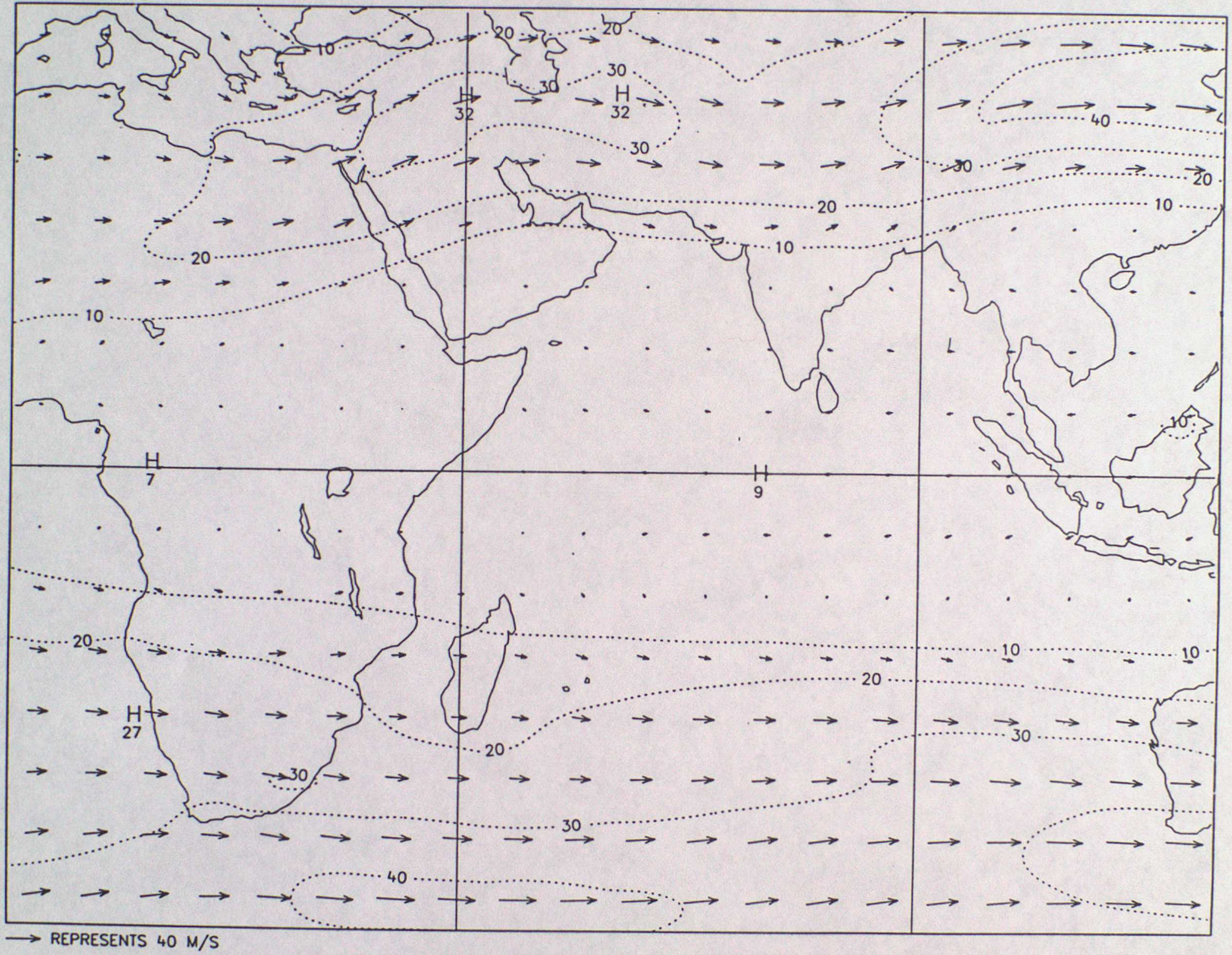
H 5
H 10
H 7
H 5
H 8
H 8
H 5
H 6
H 10
5
10
15

→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   OCTOBER   1988
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
250 MBS.   BETWEEN LONGS. 0 E - 120 E


10
20
20
30
H
32
30
H
32
30
40
30
20
20
20
10
10
10
10
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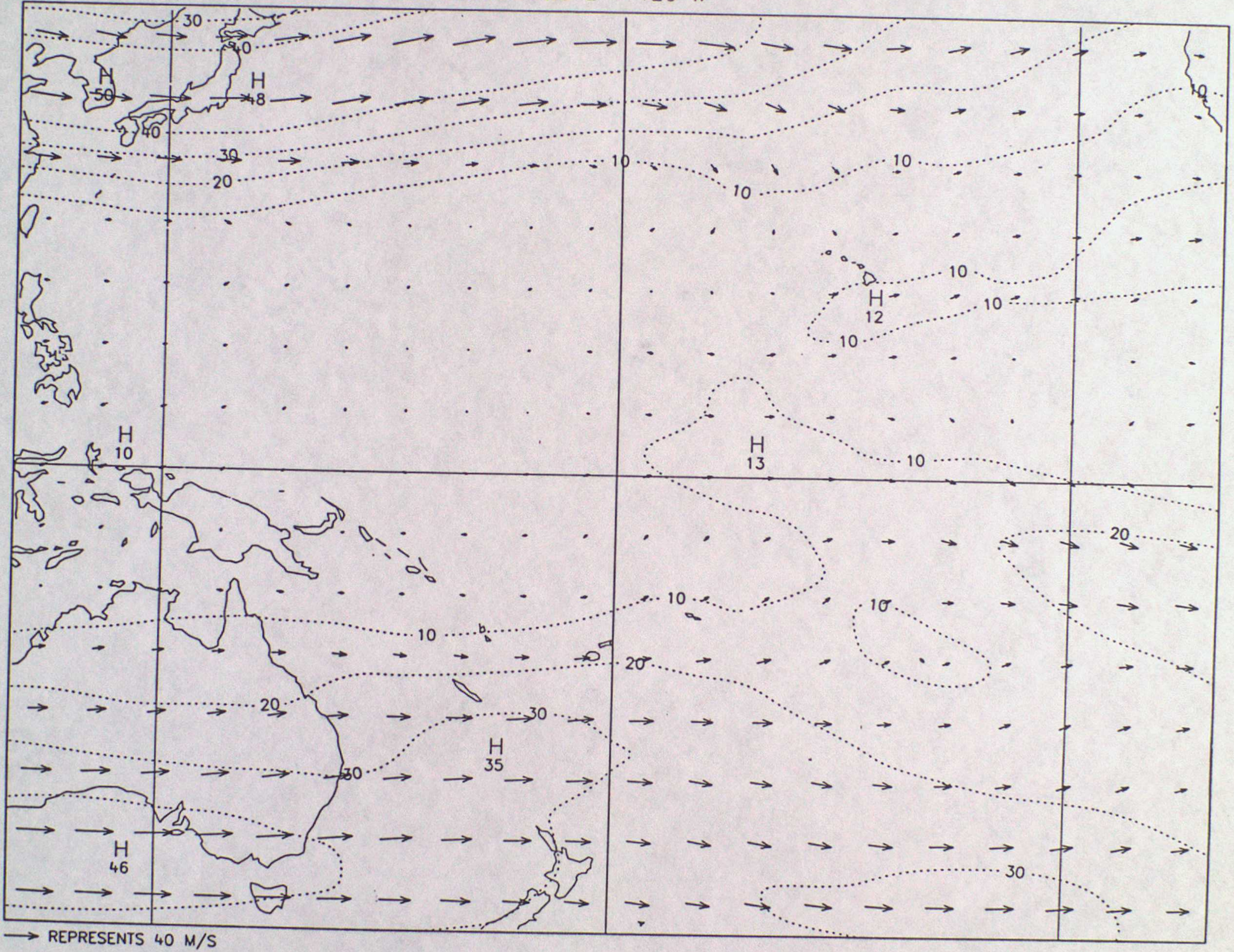
7
H
9
10
20
10
10
20
H
27
20
30
30
30
30
40
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
250 MBS. BETWEEN LONGS. 120 E - 120 W


30
40
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H
48
40
30
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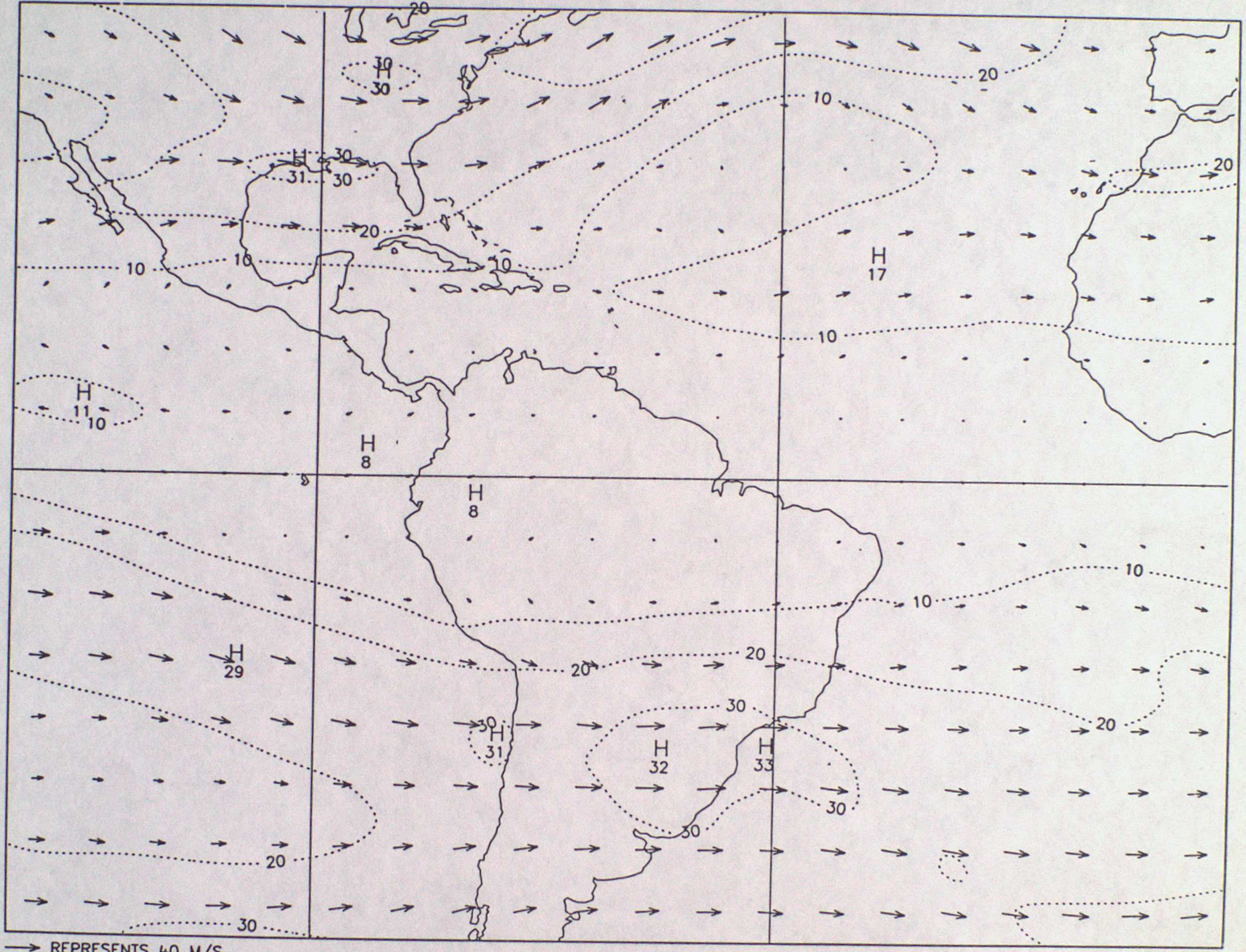
10
10
10
H
12
10
10
H
10
H
13
10
20
10
10
10
20
20
30
H
35
30
H
46
30
→ REPRESENTS 40 M/S

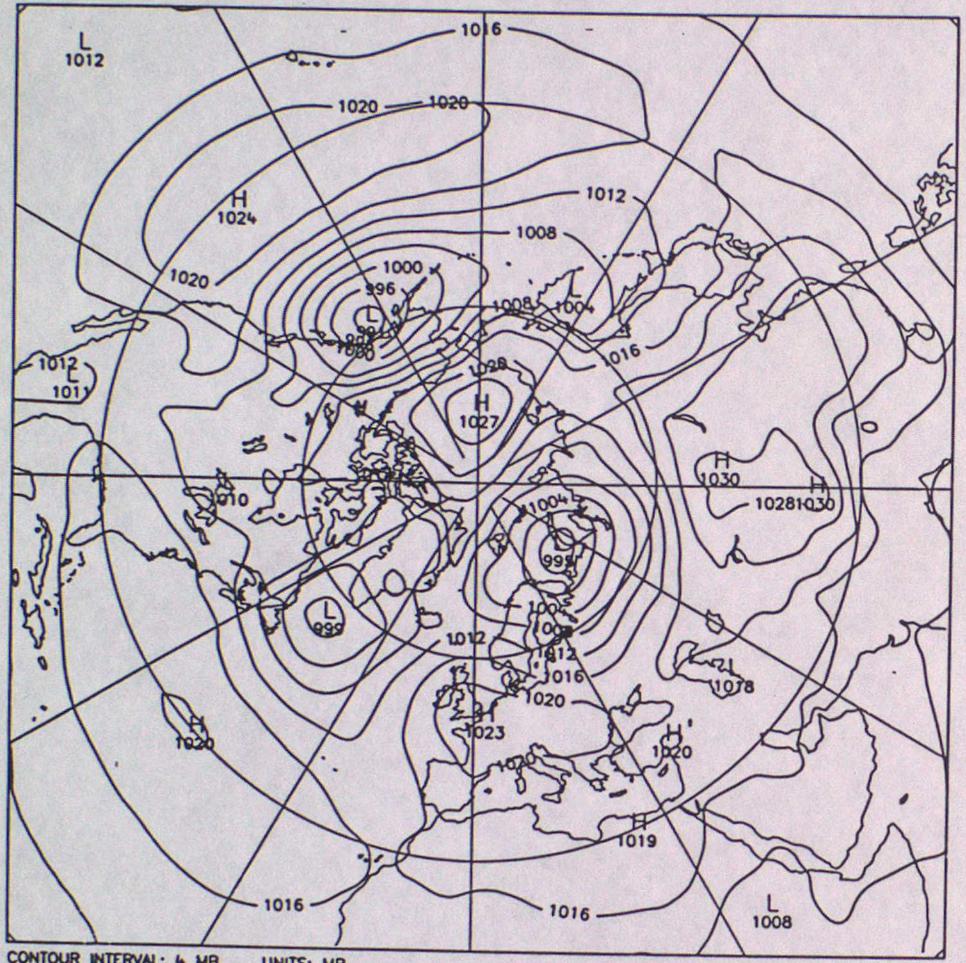
OPERATIONAL ARCHIVE MEANS. OCTOBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/10/1988 DAY 275 TO 12Z ON 31/10/1988 DAY 305
250 MBS. BETWEEN LONGS. 120 W - 0 W



20
H 30
30
H 31
30
20
10
10
10
H 17
10
20
20
H 11
10
H 8
H 8
10
10
H 29
20
20
30
H 31
30
H 32
H 33
30
30
20
20
30
→ REPRESENTS 40 M/S

NOVEMBER
1988

OPERATIONAL ARCHIVE MEANS.   NOVEMBER   1988
PMSL
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
SEA LEVEL


L 1012
1016
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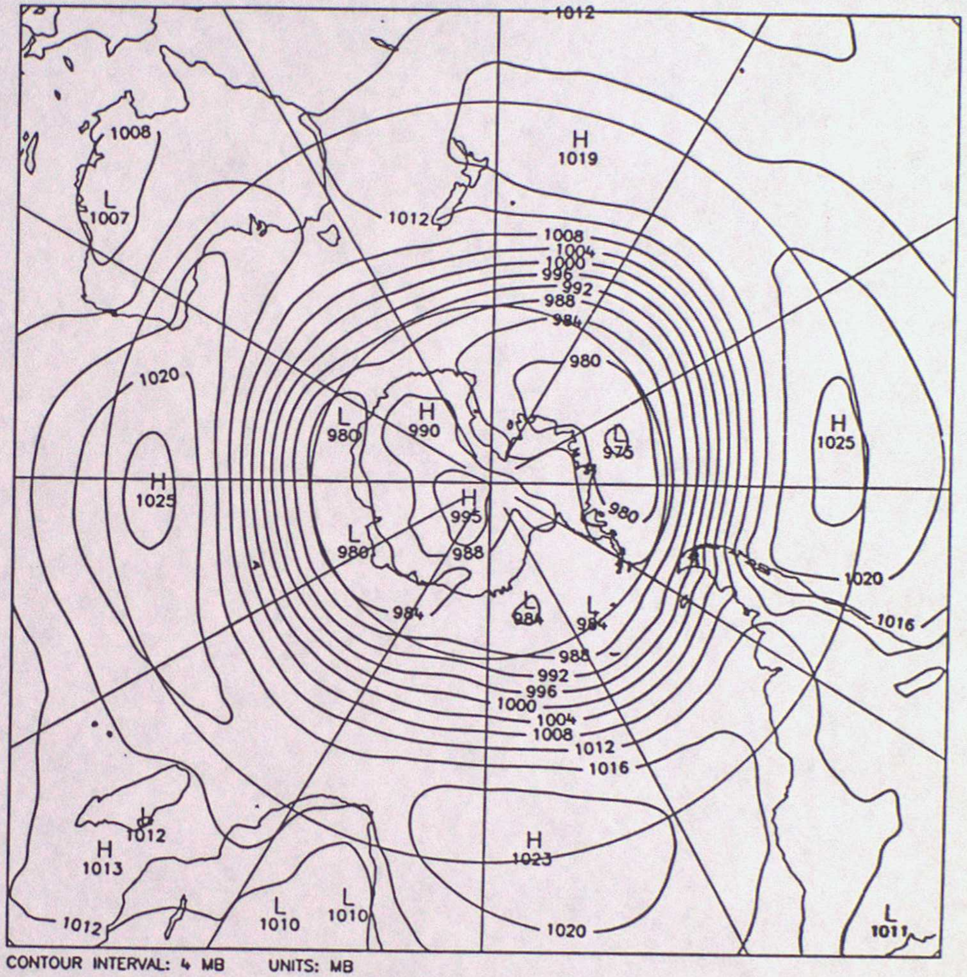
1020
H 1024
1020
1012
1008
1000
996
L
1012
L 1011
1008
1004
1016
1028
H 1027
H 1030
1028
H 1030
1010
1004
995
L 999
1012
1008
1012
1016
1020
1018
H 1023
H 1020
1020
H 1020
H 1019
1016
1016
L 1008

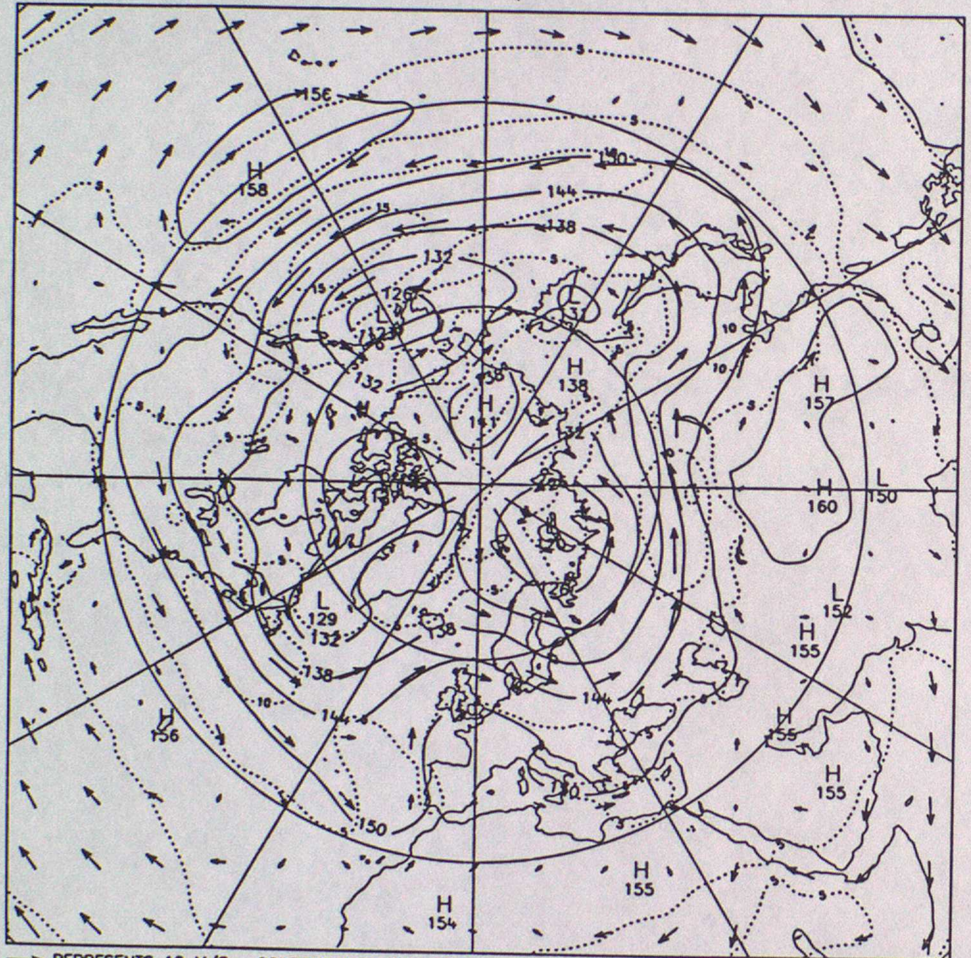
CONTOUR INTERVAL: 4 MB   UNITS: MB

OPERATIONAL ARCHIVE MEANS.   NOVEMBER   1988
PMSL
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
SEA LEVEL


1012
1008
L 1007
H 1019
1012
1008
1004
1000
996
992
988
984
980
1020
L 980
H 990
L 976
H 1025
H 1025
H 995
980
L 980
988
984
L 984
L 984
1020
1016
988
992
996
1000
1004
1008
1012
1016
L 1012
H 1013
H 1023
1012
L 1010
L 1010
1020
L 1011

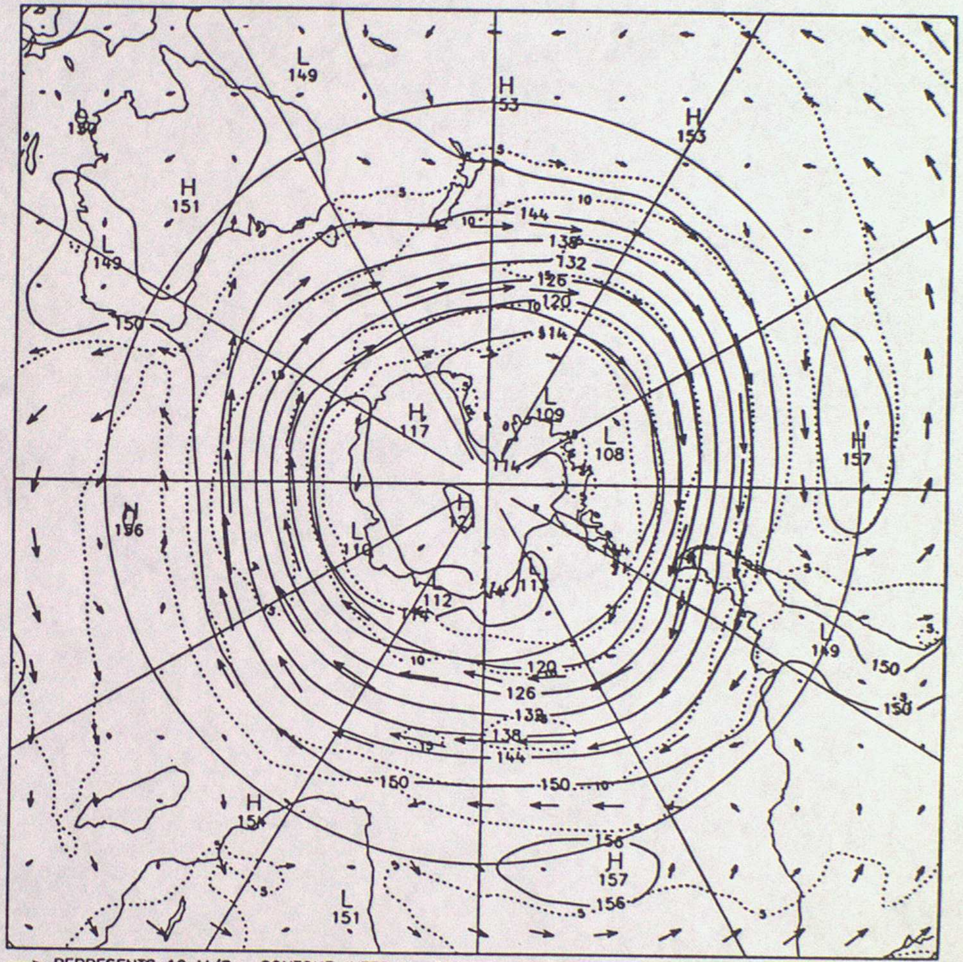
CONTOUR INTERVAL: 4 MB   UNITS: MB

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 850 MB



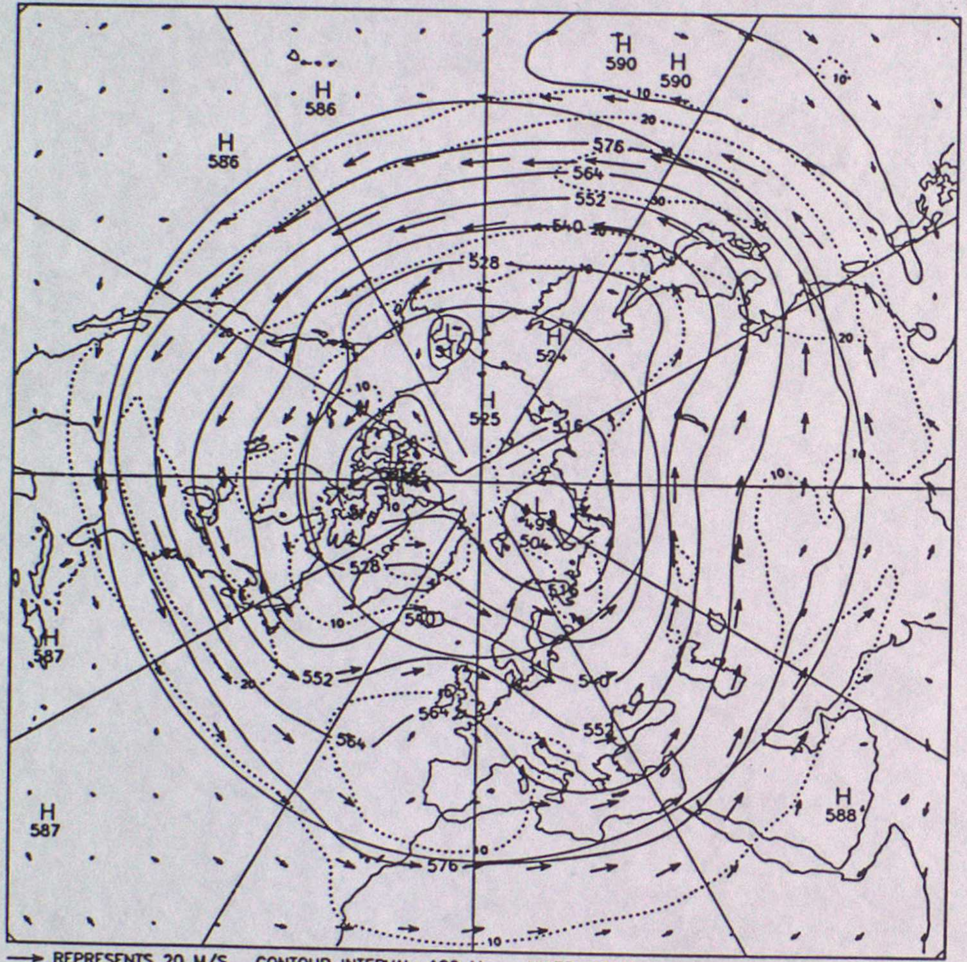
→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 850 MB



→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   NOVEMBER   1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 500 MB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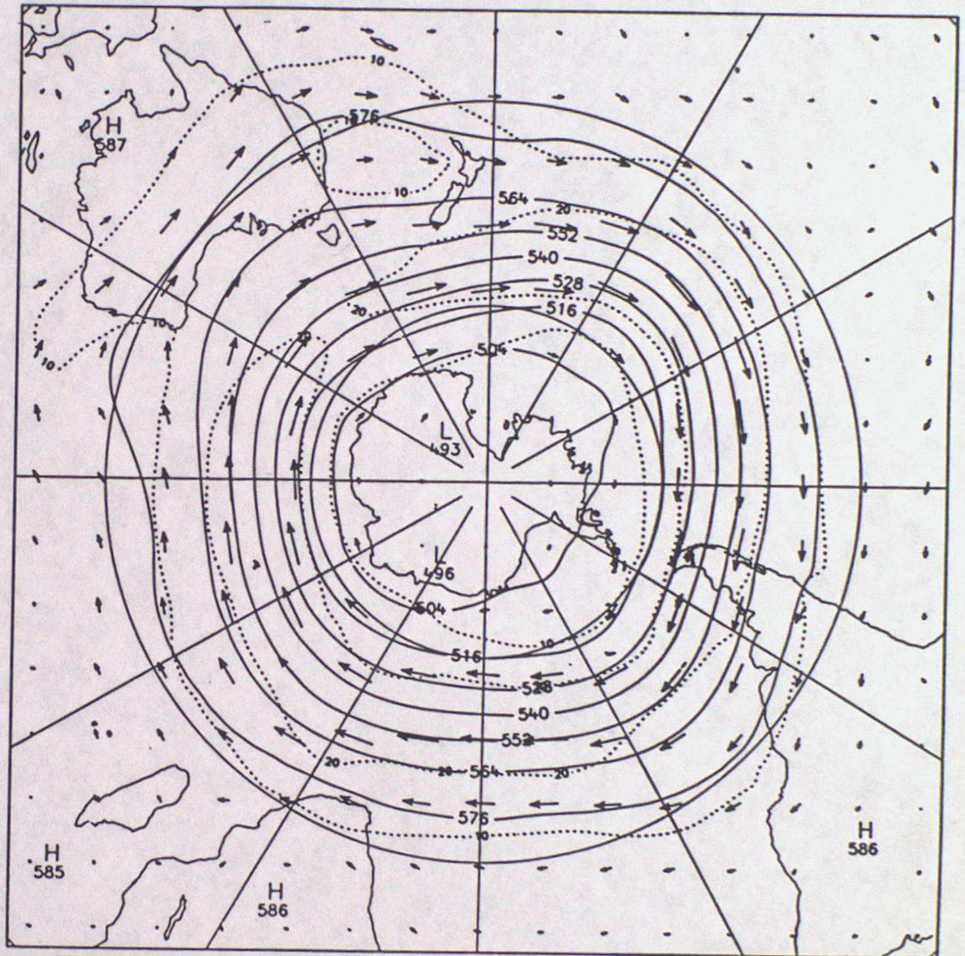
H 590
H 586
H 586
576
564
552
540
528
H 524
H 525
516
L 493
504
528
540
552
564
576
H 587
H 587
H 588
10
20

→ REPRESENTS 20 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   NOVEMBER   1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 500 MB


H 587
576
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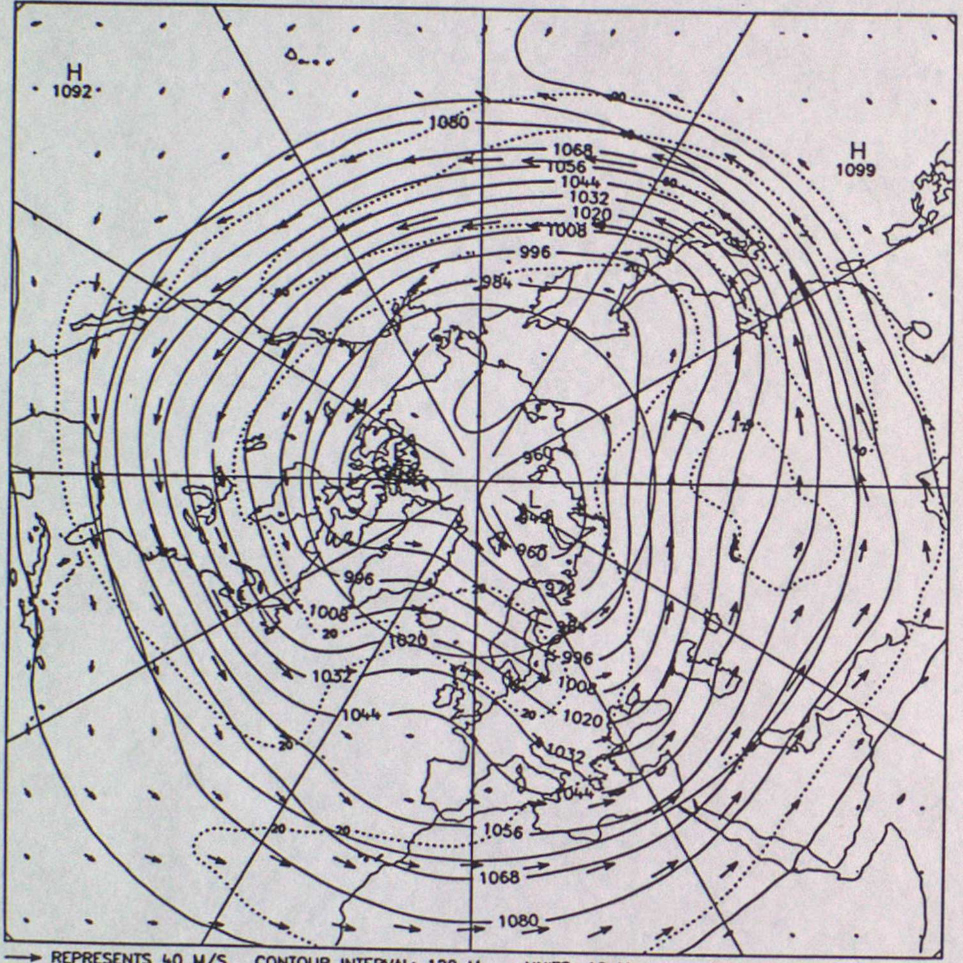
552
540
528
516
504
L 493
L 496
504
516
528
540
552
564
576
H 585
H 586
H 586
10
20

→ REPRESENTS 20 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 250 MB


H
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1068
1056
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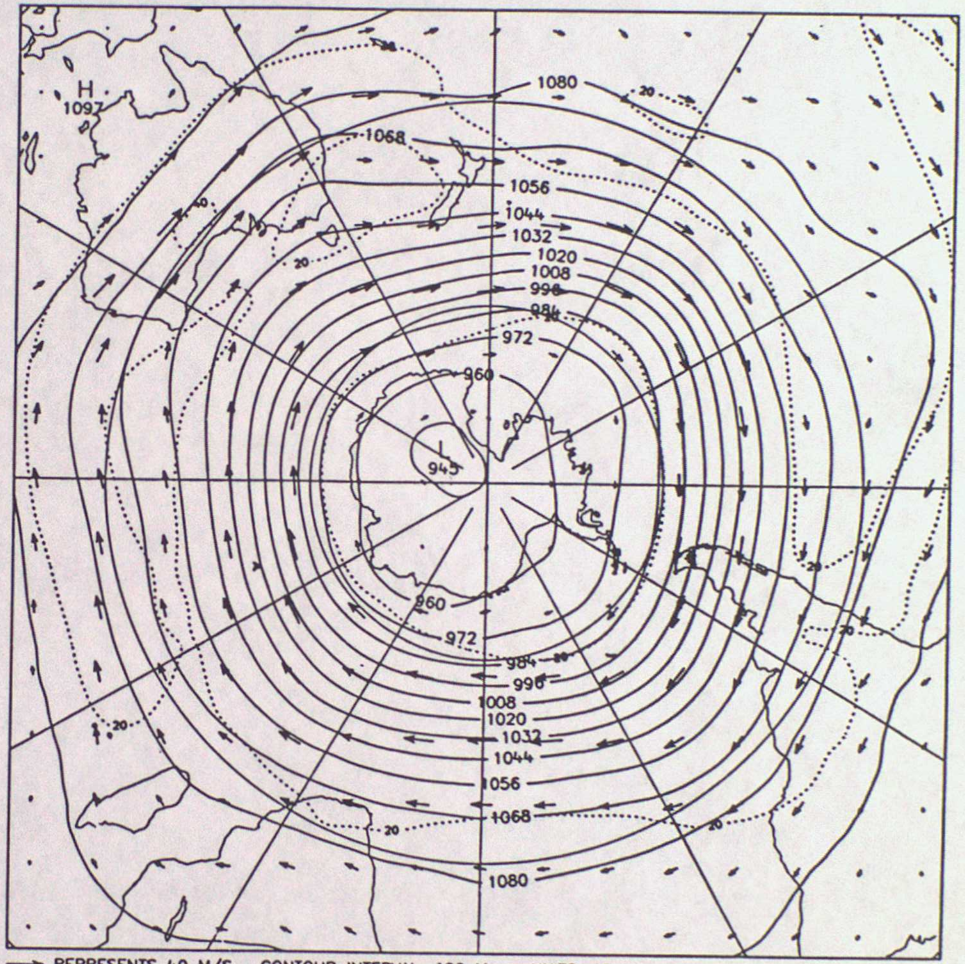
1032
1020
1008
996
984
960
L
948
960
972
984
996
1008
1020
1032
1044
1056
1068
1080
20
40

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 250 MB


H
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1068
1056
1044
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1008
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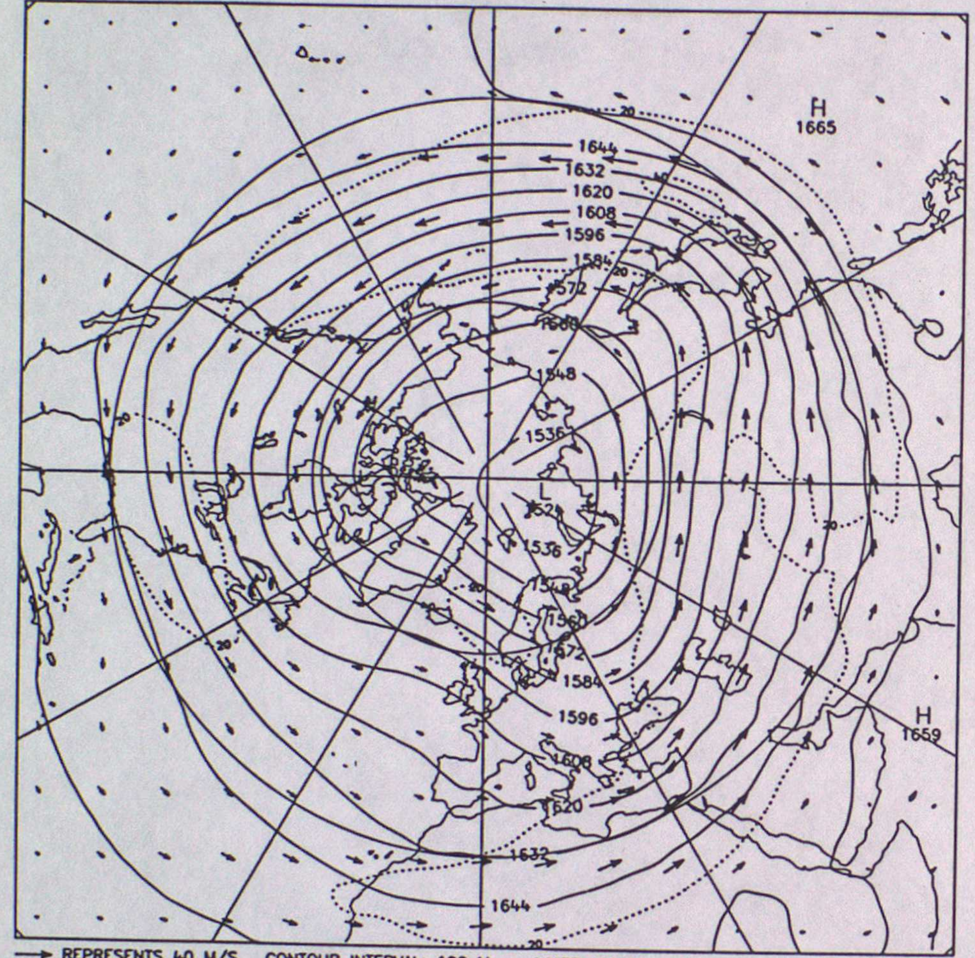
984
972
960
L
945
960
972
984
996
1008
1020
1032
1044
1056
1068
1080
20
40

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 100 MB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1665
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1632
1620
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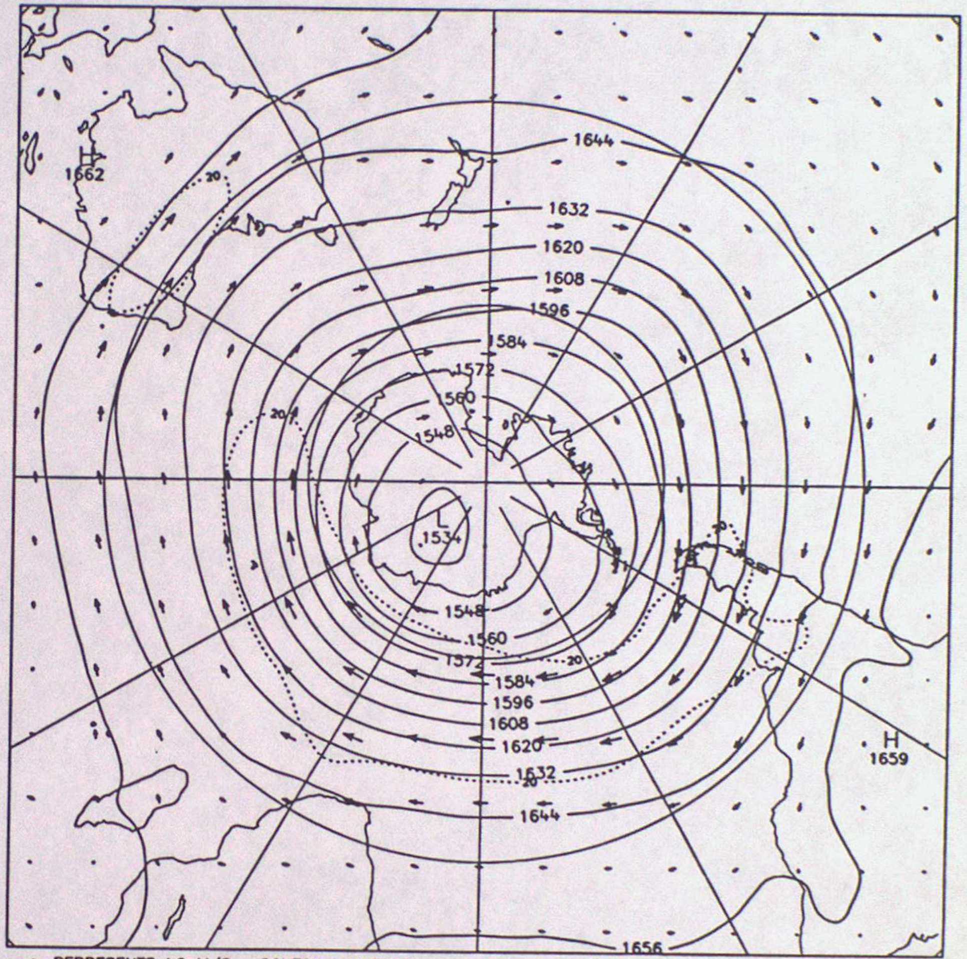
L
1536
1548
1560
1572
1584
1596
1608
1620
1632
1644
20
H
1659

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 100 MB


H
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1548
L
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1548
1560
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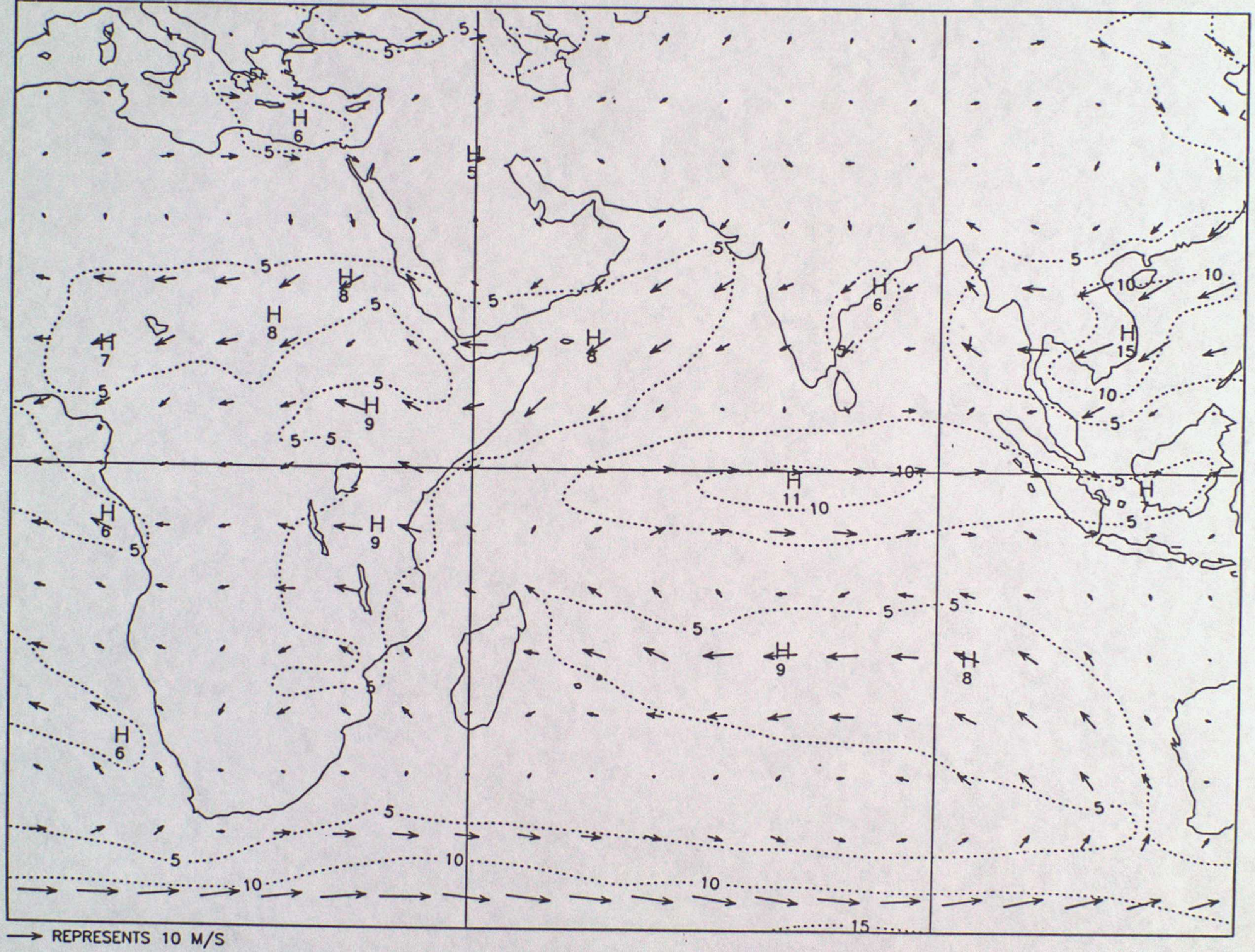
1584
1596
1608
1620
1632
1644
1656
20
H
1659

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   NOVEMBER   1988
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
850 MBS.   BETWEEN LONGS. 0 E - 120 E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H 5
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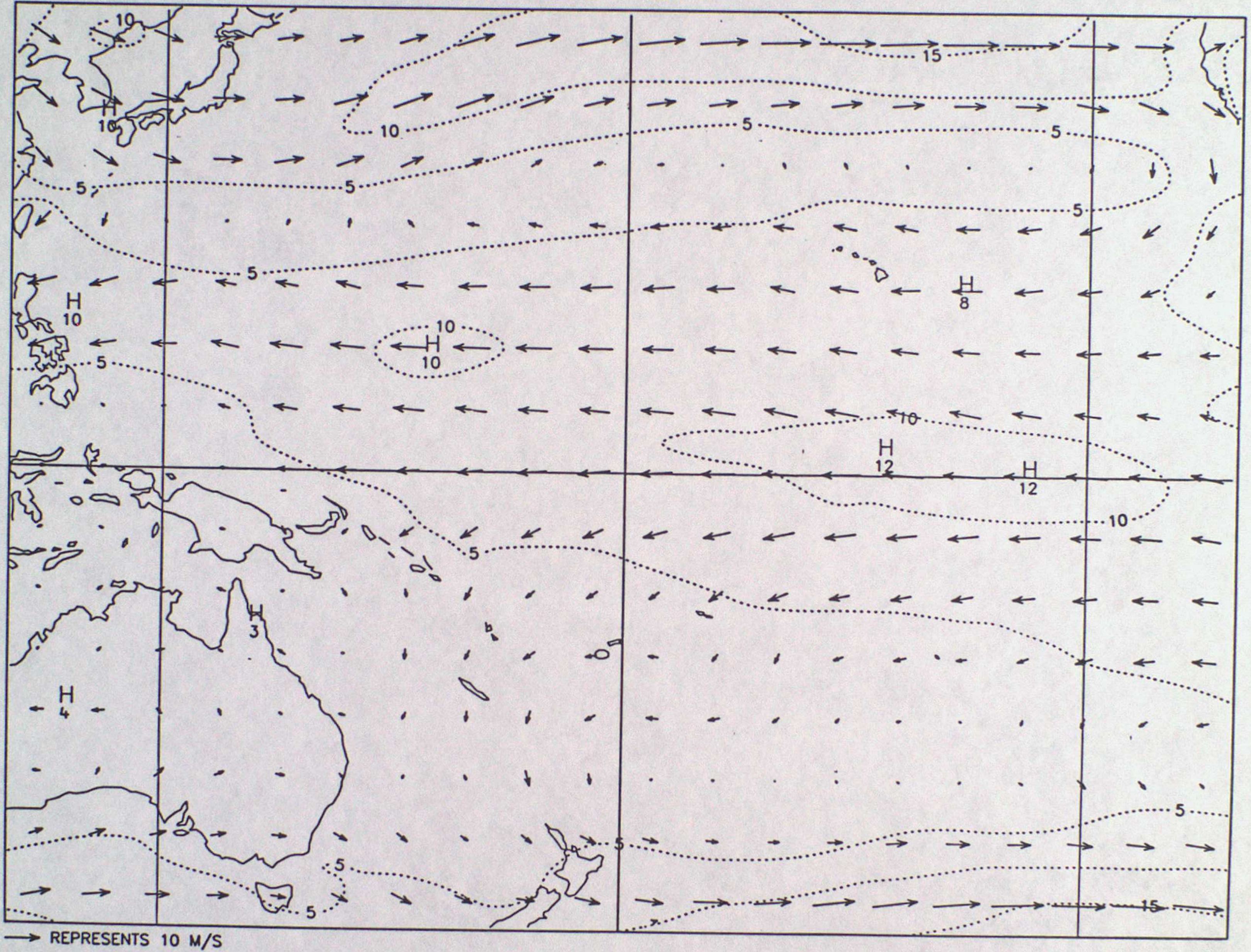
H 7
H 9
H 6
H 9
H 6
H 8
H 6
H 15
H 11
H 9
H 8
5
10
15
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
850 MBS. BETWEEN LONGS. 120 E - 120 W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H
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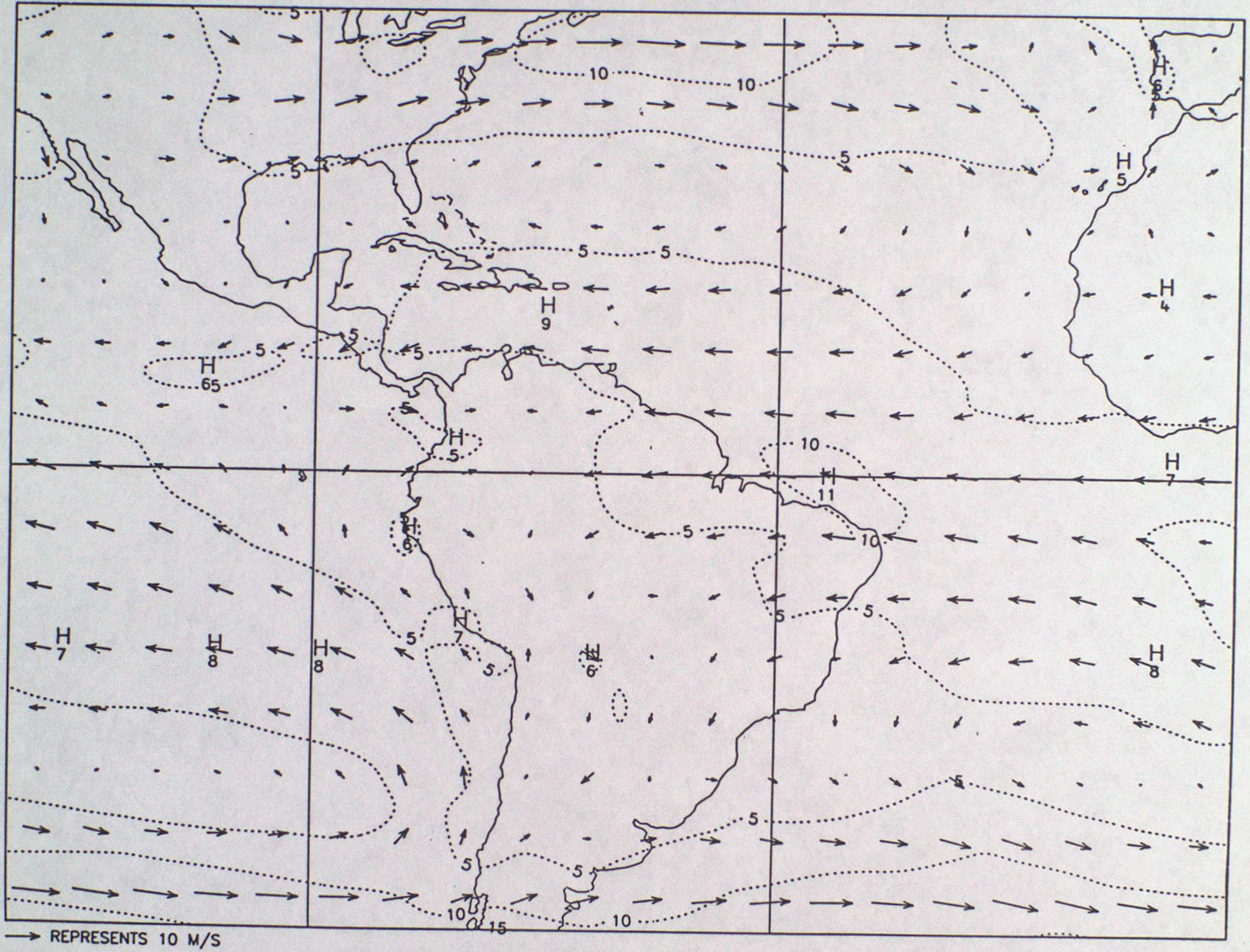
12
H
12
10
5
H
3
H
4
5
5
5
5
15
REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
850 MBS. BETWEEN LONGS. 120 W - 0 W


5
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9
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5
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4
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65
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5
10
H
11
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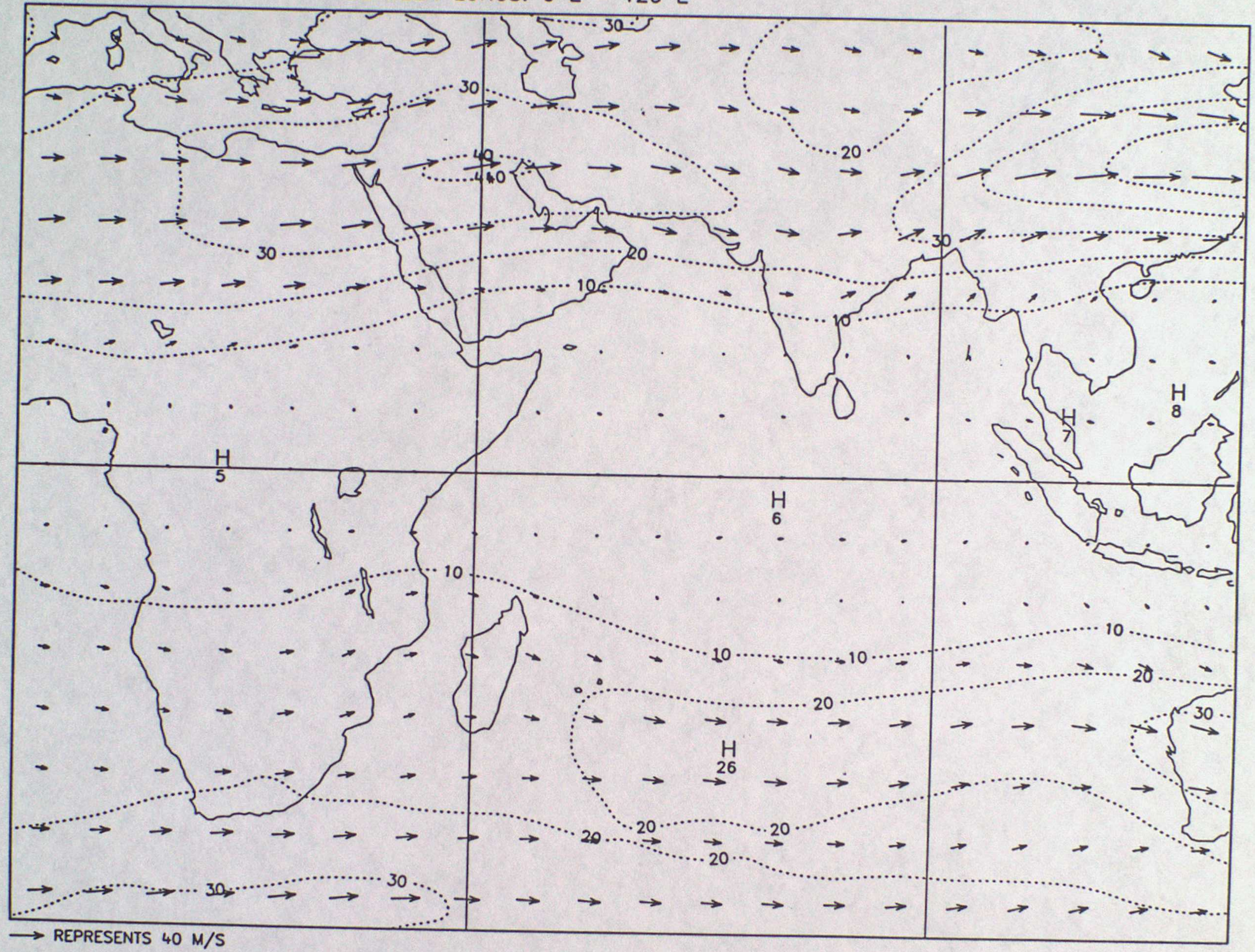
7
10
5
5
H
6
5
5
H
7
H
7
H
8
H
8
H
6
5
H
8
5
5
5
5
10
15
10
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
250 MBS. BETWEEN LONGS. 0 E - 120 E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10
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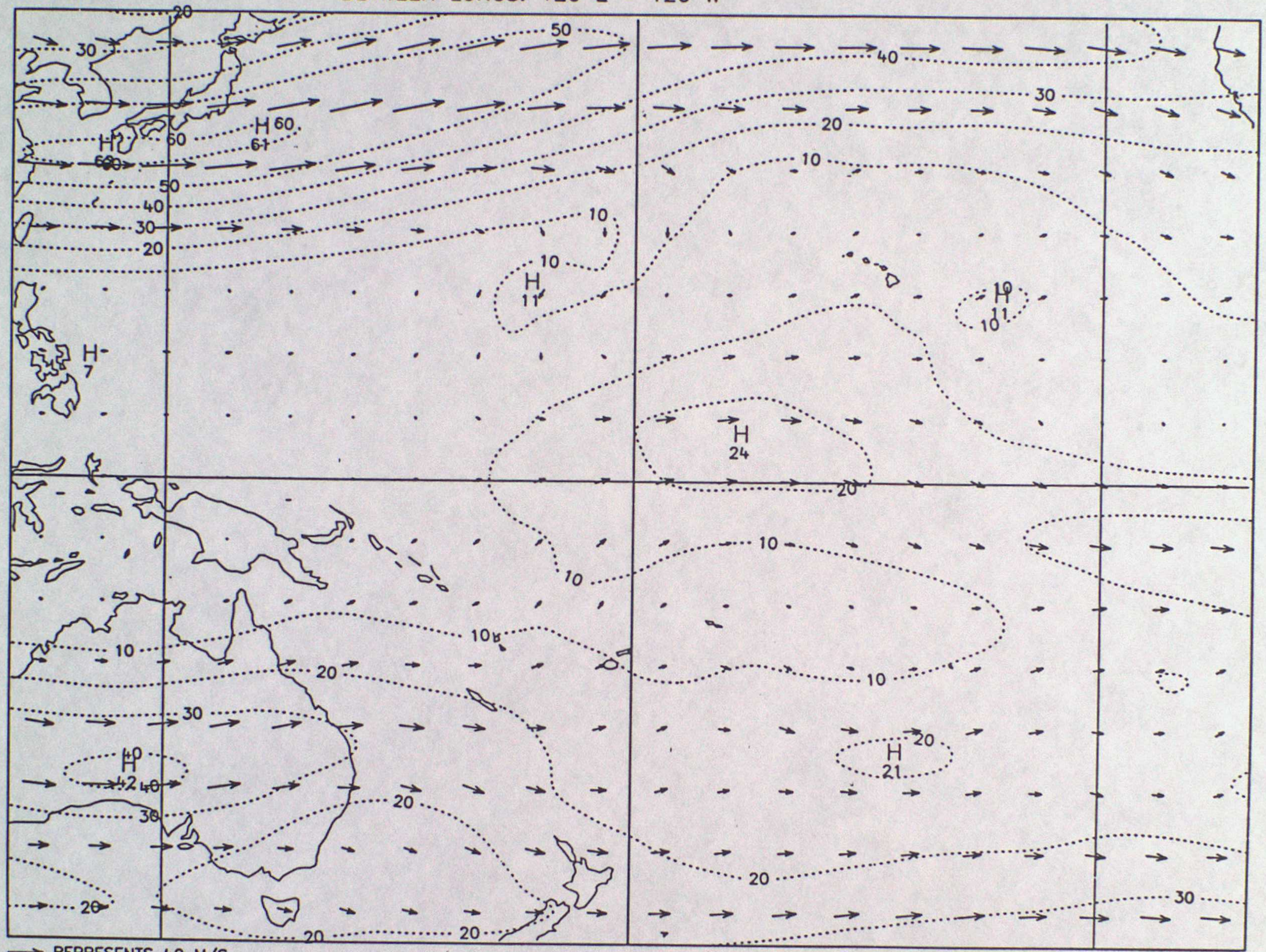
H
5
H
7
H
8
H
6
10
10
10
10
20
20
H
26
30
20
20
20
20
30
30
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
250 MBS. BETWEEN LONGS. 120 E - 120 W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11
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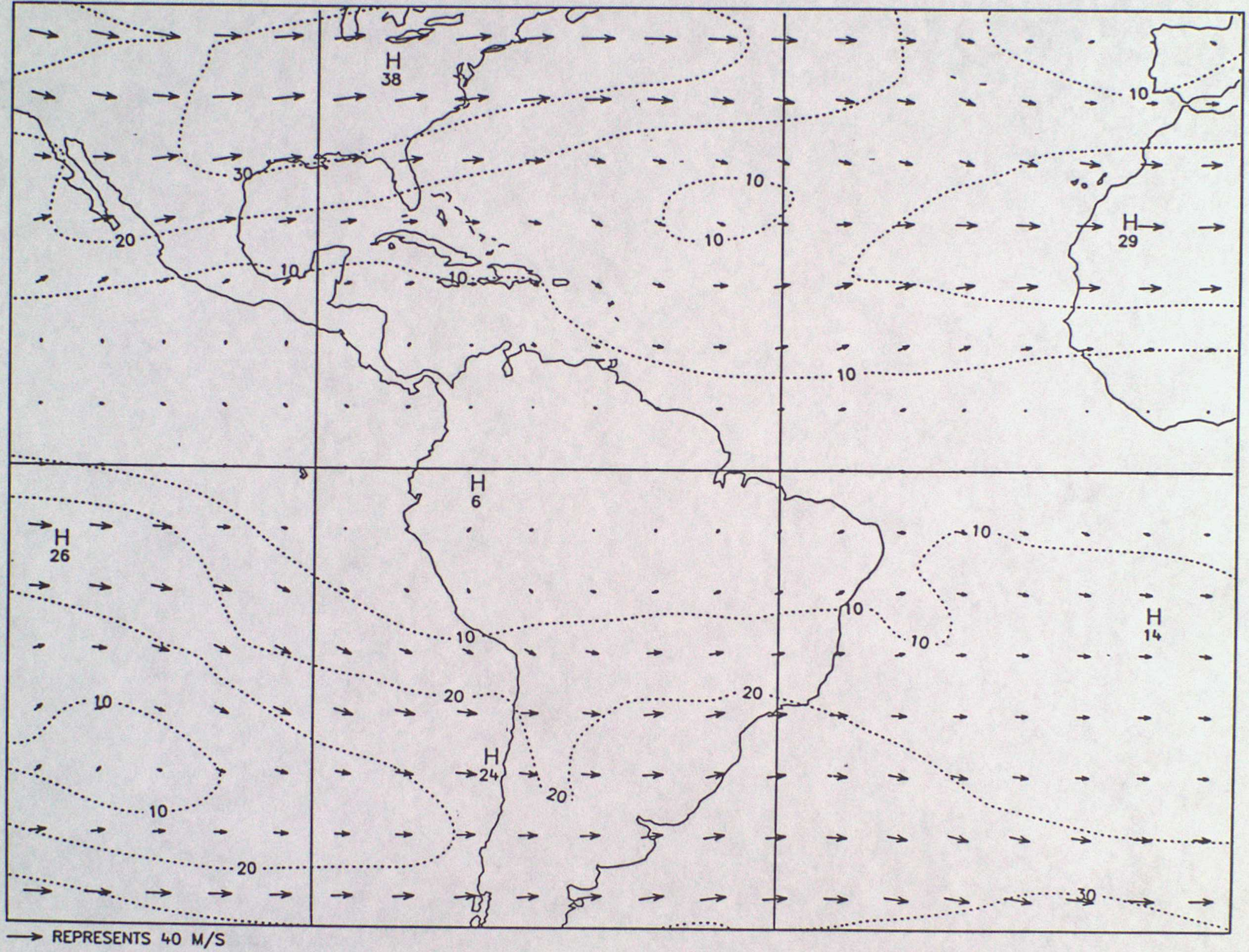
7
H
10
11
10
H
24
20
10
10
10
10
20
30
40
H
42
40
30
20
20
20
20
H
20
21
20
30

→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. NOVEMBER 1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/11/1988 DAY 306 TO 12Z ON 30/11/1988 DAY 335
250 MBS. BETWEEN LONGS. 120 W - 0 W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38
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6
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26
H
14
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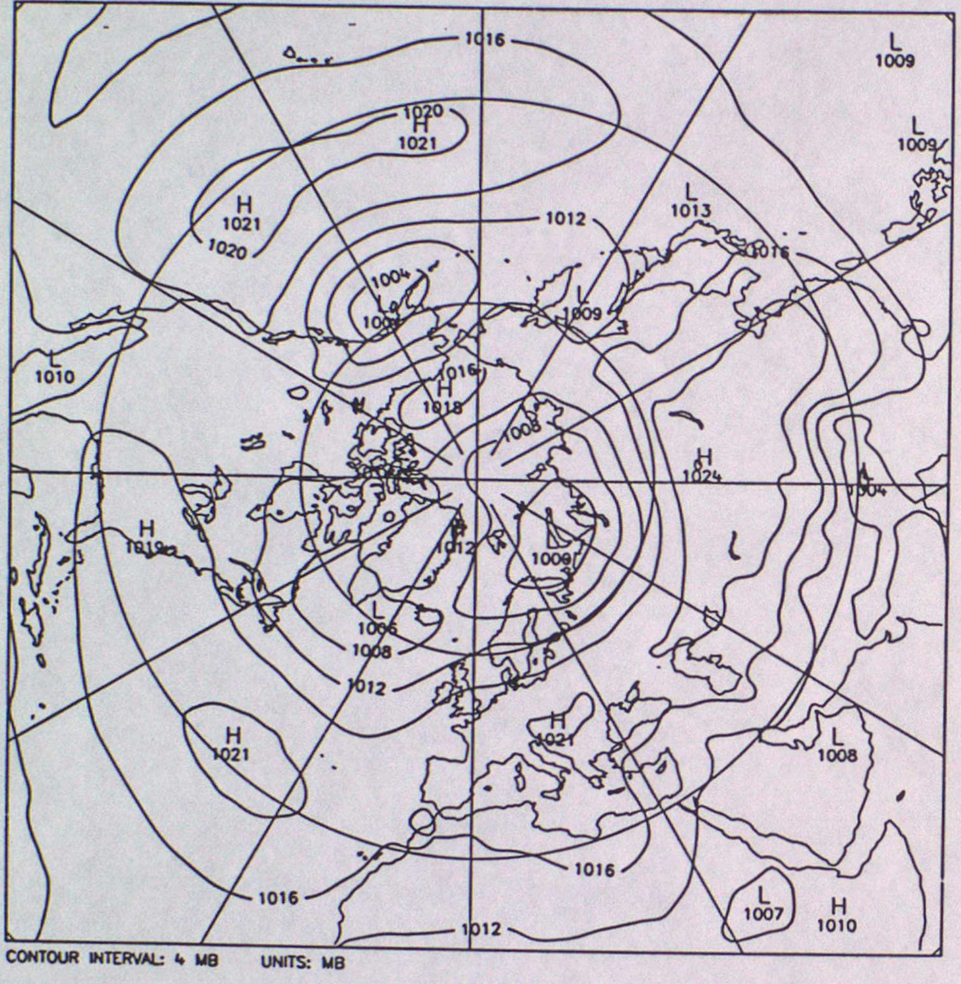
10
10
10
20
20
10
10
H
24
20
20
30
→ REPRESENTS 40 M/S

SEPTEMBER/OCTOBER/NOVEMBER
1988

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1988
PMSL
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
SEA LEVEL



L 1009
L 1009
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H 1021
1016
H 1021
1020
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L 1013
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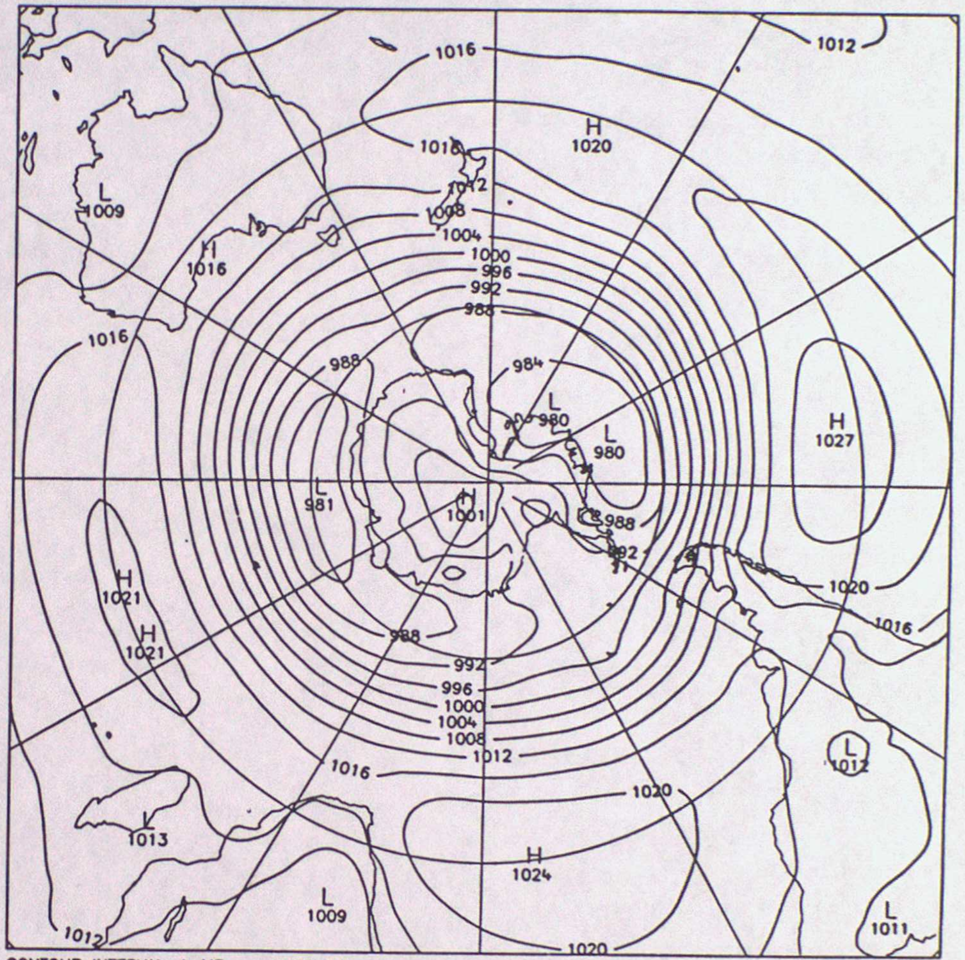
1008
L 1009
L 1010
1016
H 1018
1008
H 1024
1004
H 1019
1012
1009
L 1006
1008
1012
H 1021
H 1021
L 1008
1016
1016
L 1007
H 1010
1012

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1988
PMSL
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
SEA LEVEL



1016
1012
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1012
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992
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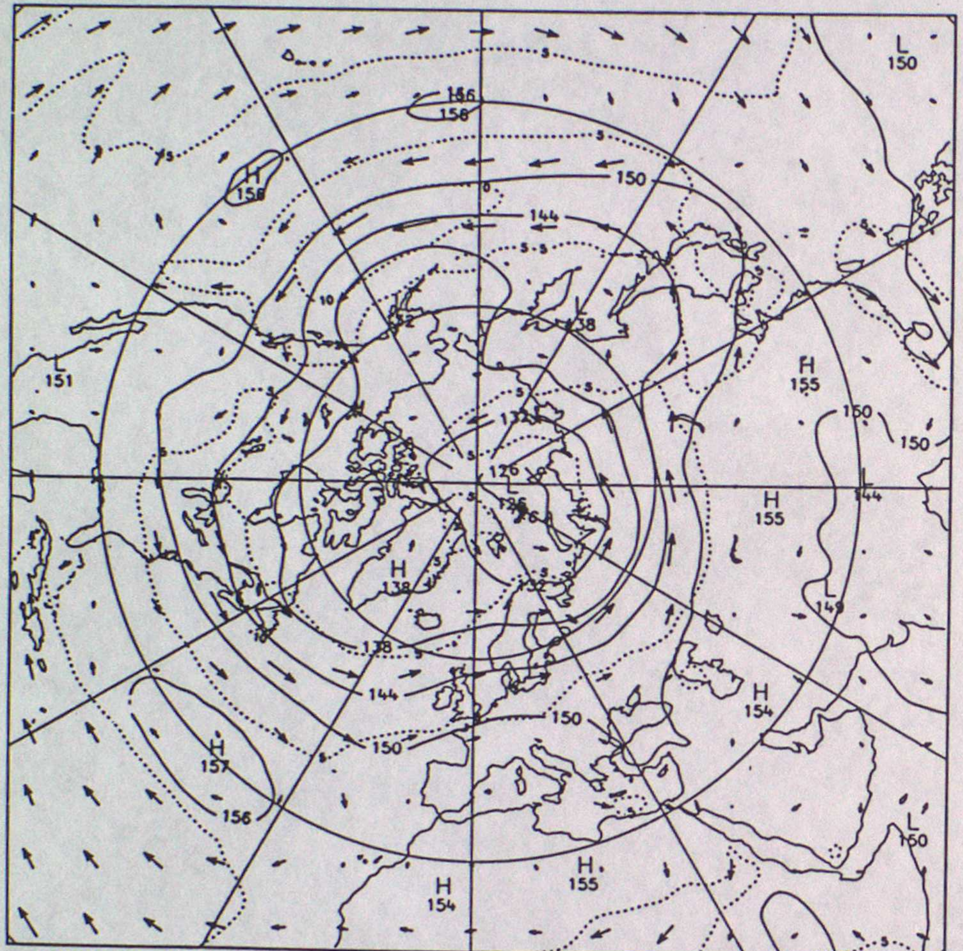
L 980
L 980
H 1027
L 981
H 1001
988
992
H 1021
H 1021
1020
1016
988
992
996
1000
1004
1008
1012
1016
1020
L 1012
L 1013
H 1024
L 1009
1012
1020
L 1011

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM   0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 850 MB


L 150
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L 151
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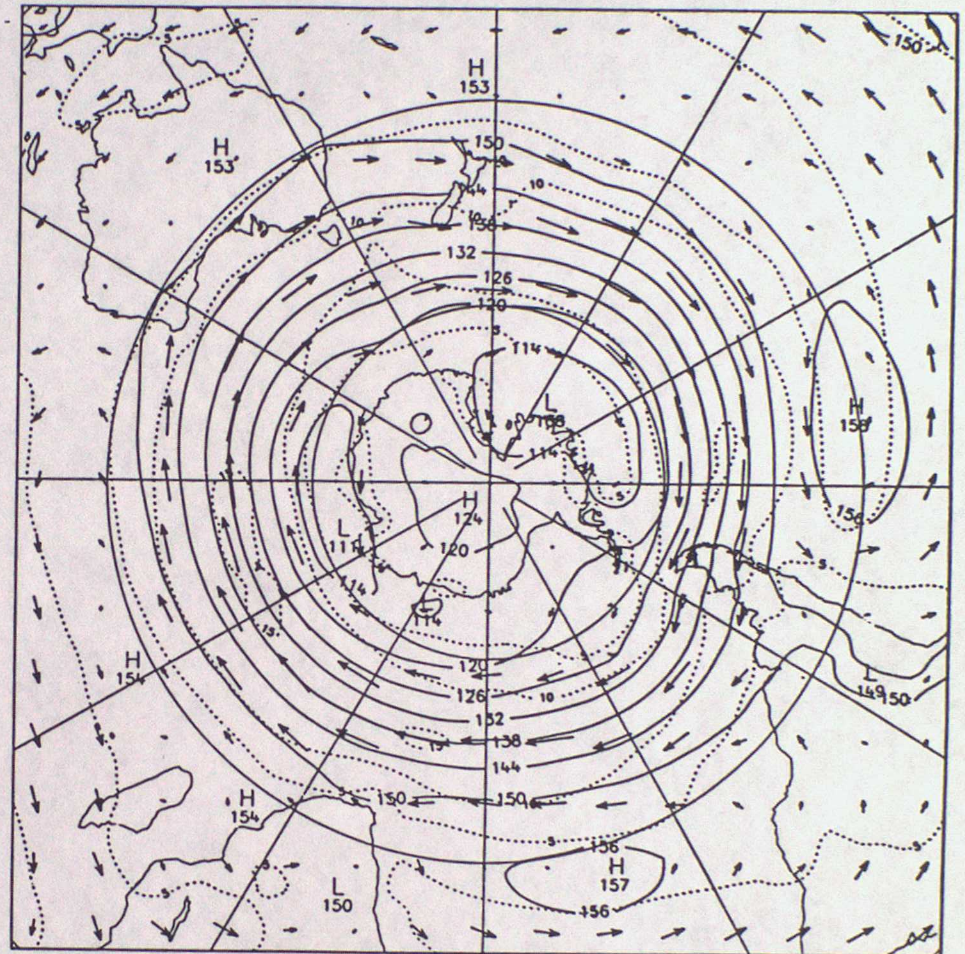
150
L 144
H 155
126
132
H 138
132
L 149
138
144
150
H 154
H 157
156
H 155
H 154
L 150

→ REPRESENTS 10 M/S   CONTOUR INTERVAL: 60 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM   0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 850 MB


H 153
H 153
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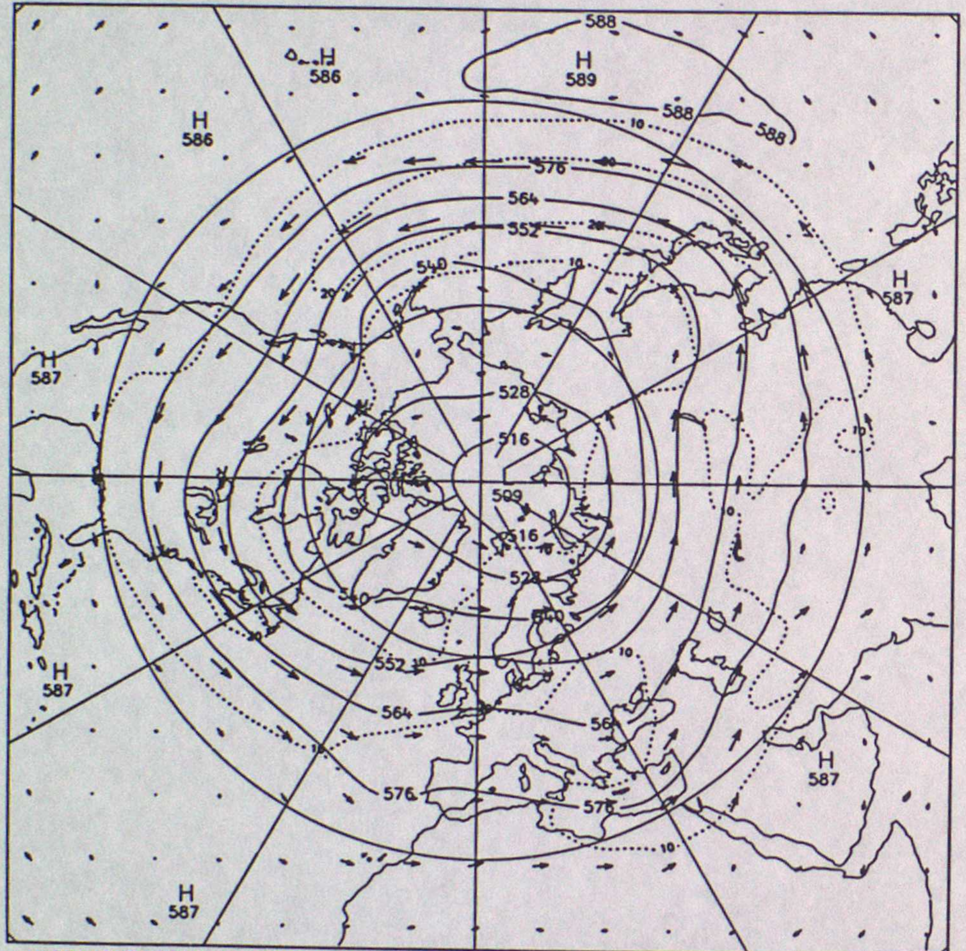
114
L
H 158
156
H 124
120
L 114
H 154
L 149 150
120
126
132
138
144
150
H 154
150
156
H 157
156
L 150

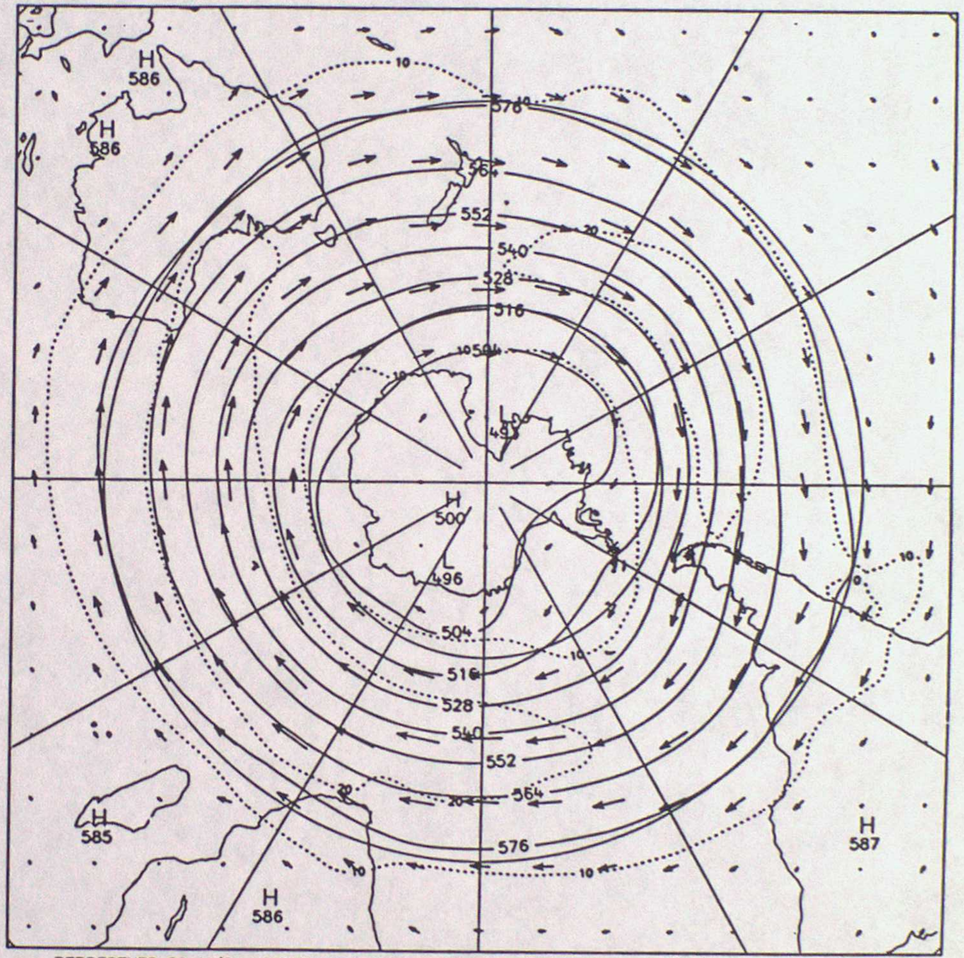
→ REPRESENTS 10 M/S   CONTOUR INTERVAL: 60 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 500 MB


H 589
588
H 586
H 586
H 587
H 587
H 587
H 587
576
564
552
540
528
516
509
10
20

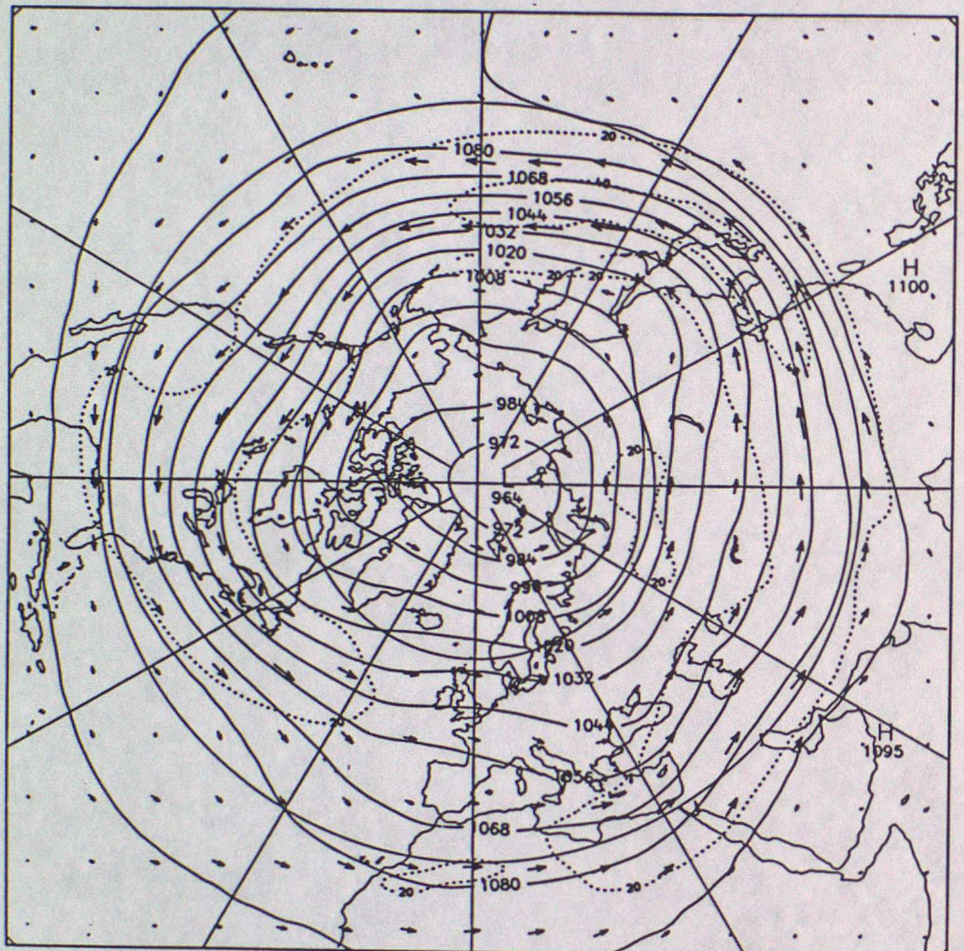
→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 500 MB


H 586
H 586
H 585
H 586
H 587
H 500
L 496
576
564
552
540
528
516
504
10
20

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 250 MB


1080
1068
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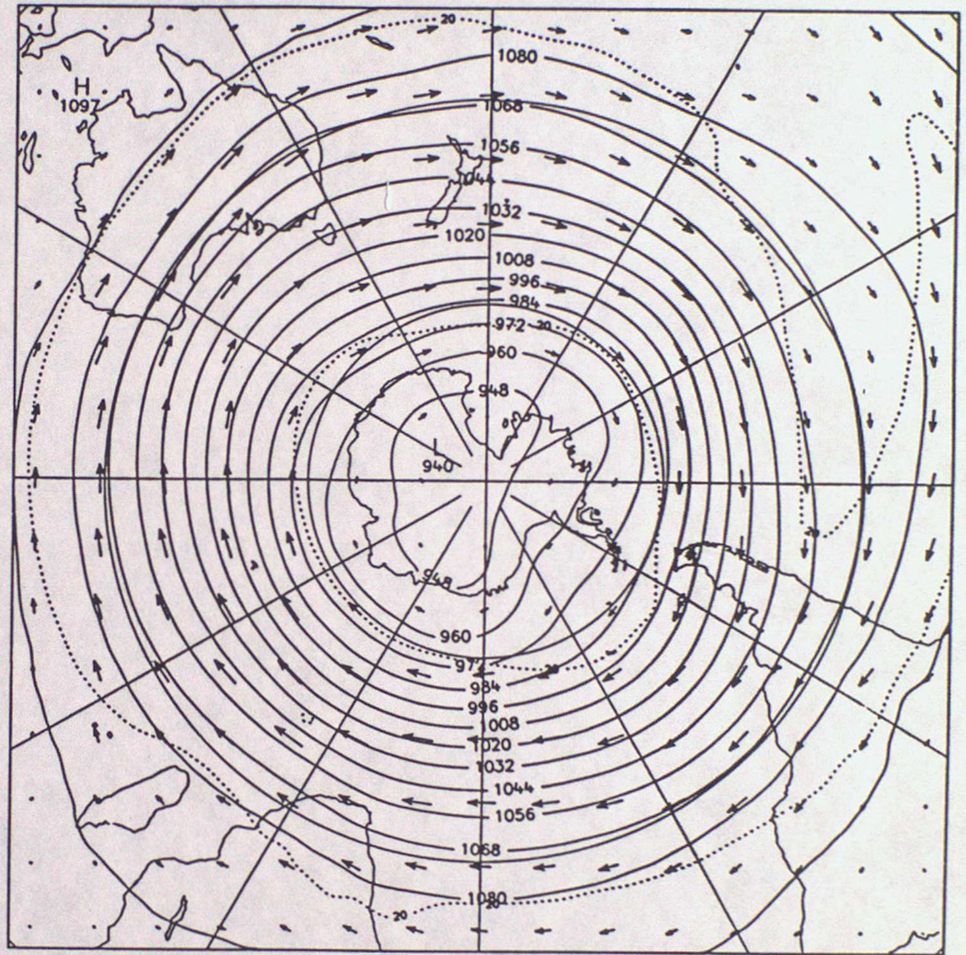
1044
1032
1020
1008
984
972
964
998
20
H
1100
H
1095

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 250 MB


H
1097
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1068
1056
1044
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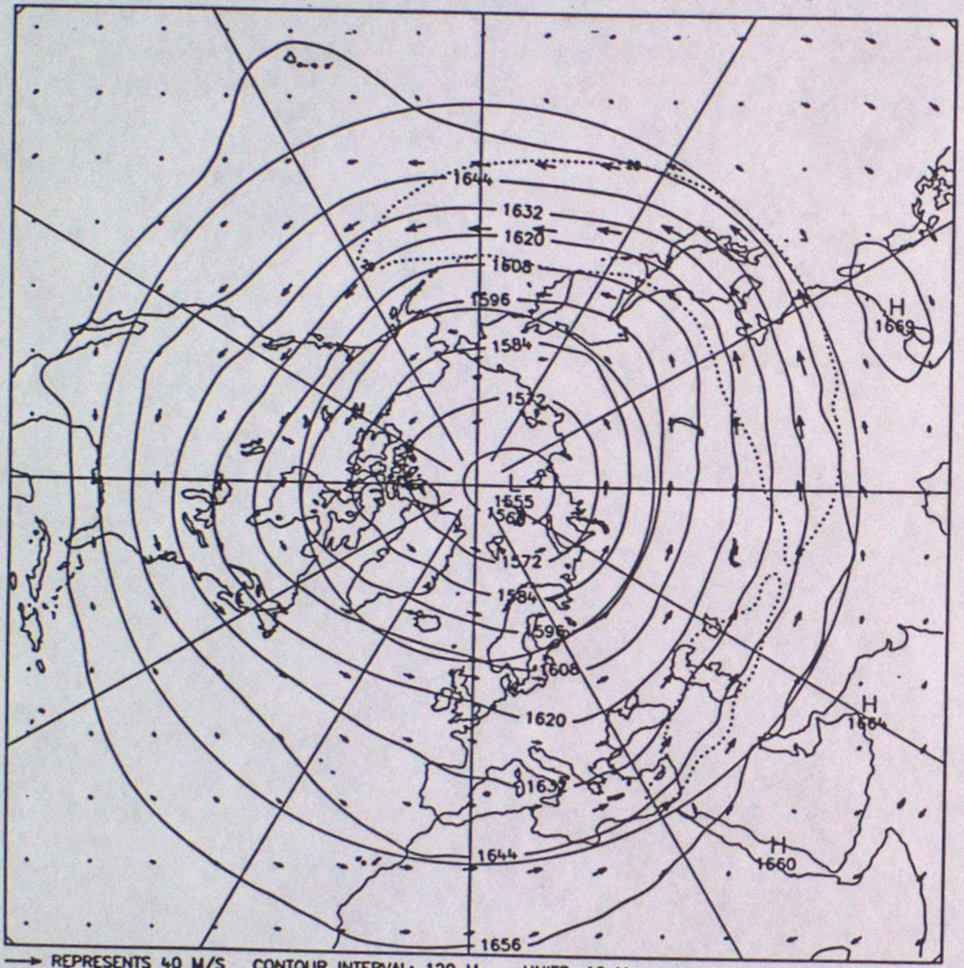
1020
1008
996
984
972
960
948
L
940
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

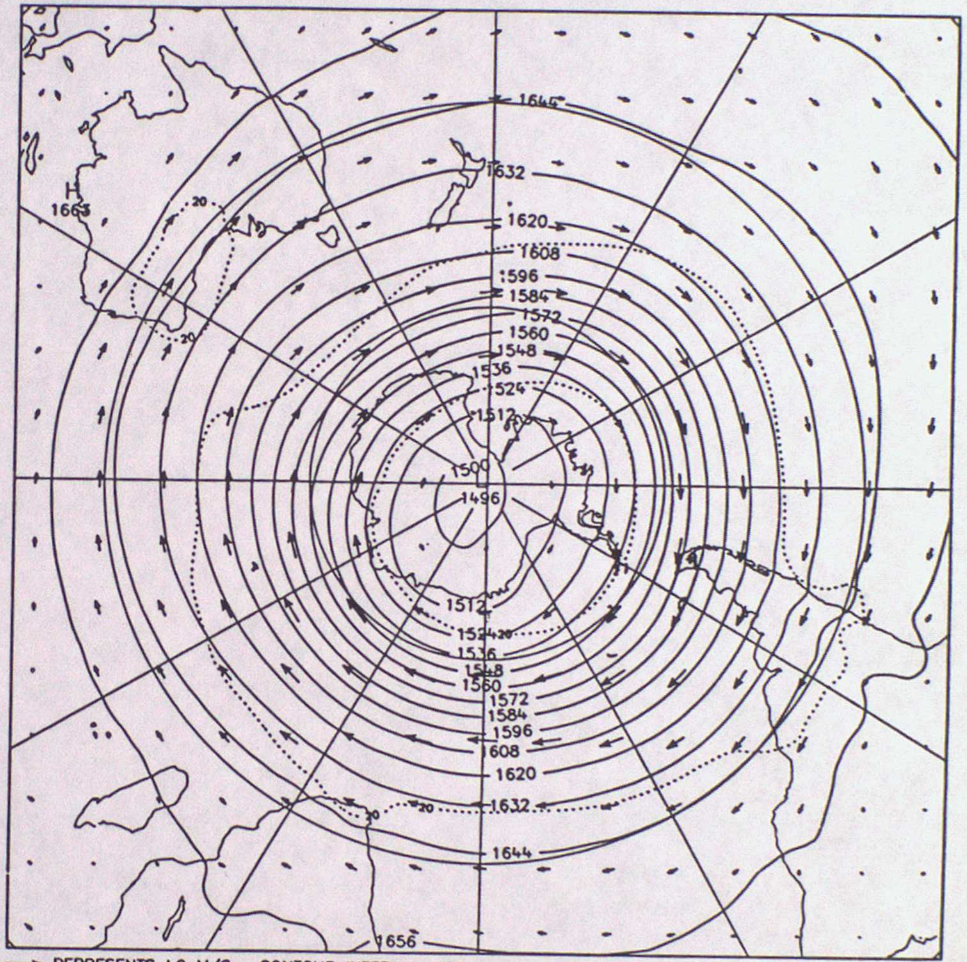
OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 100 MB



1644
1632
1620
1608
1596
1584
1572
L
1555
1572
1584
1596
1608
1620
1632
1644
1656
H
1669
H
1664
H
1660
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1988
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
LEVEL: 100 MB



H
1665
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1632
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1584
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1500
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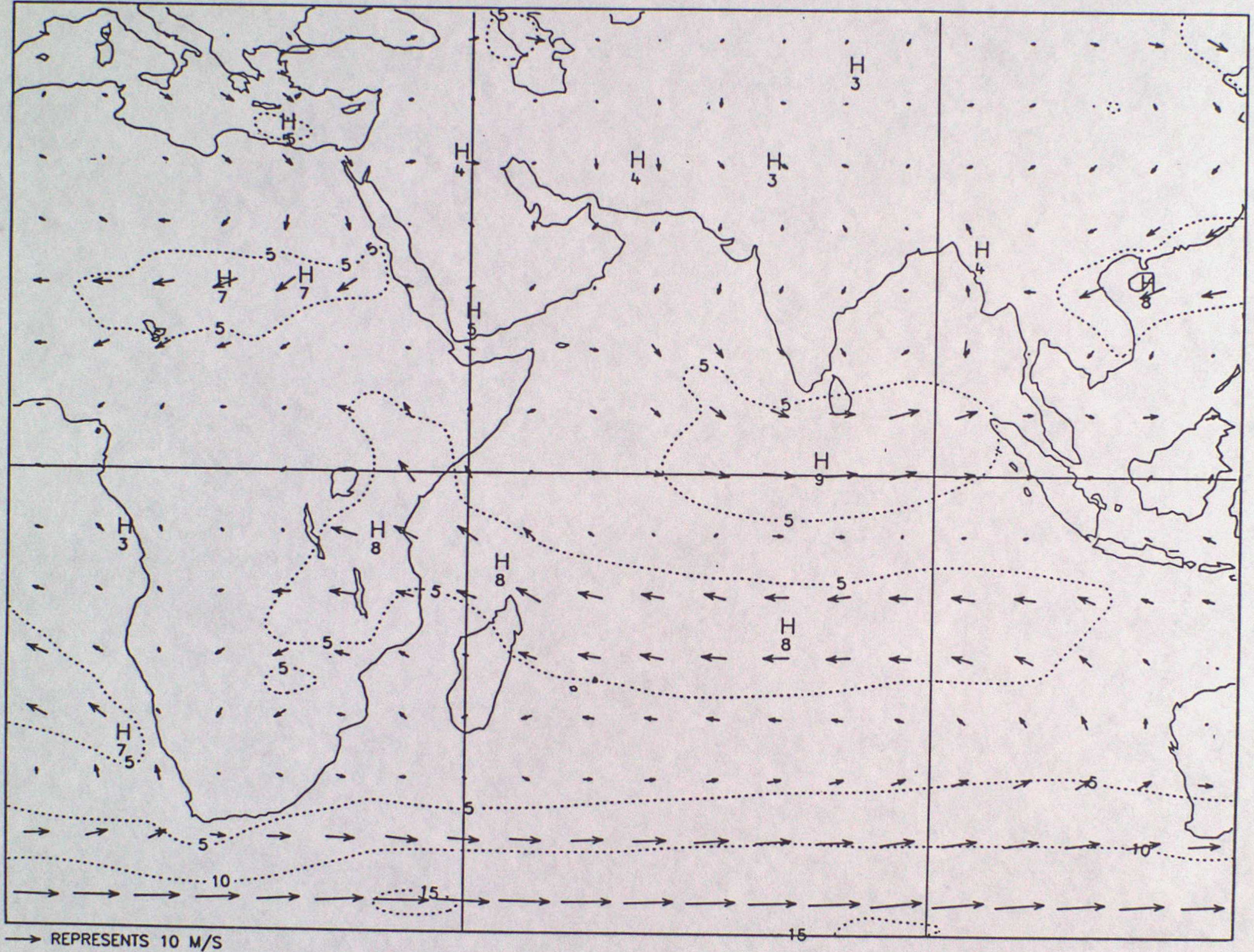
1524
1536
1548
1560
1572
1584
1596
1608
1620
1632
1644
1656
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1988
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
850 MBS.   BETWEEN LONGS. 0 E - 120 E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H 4
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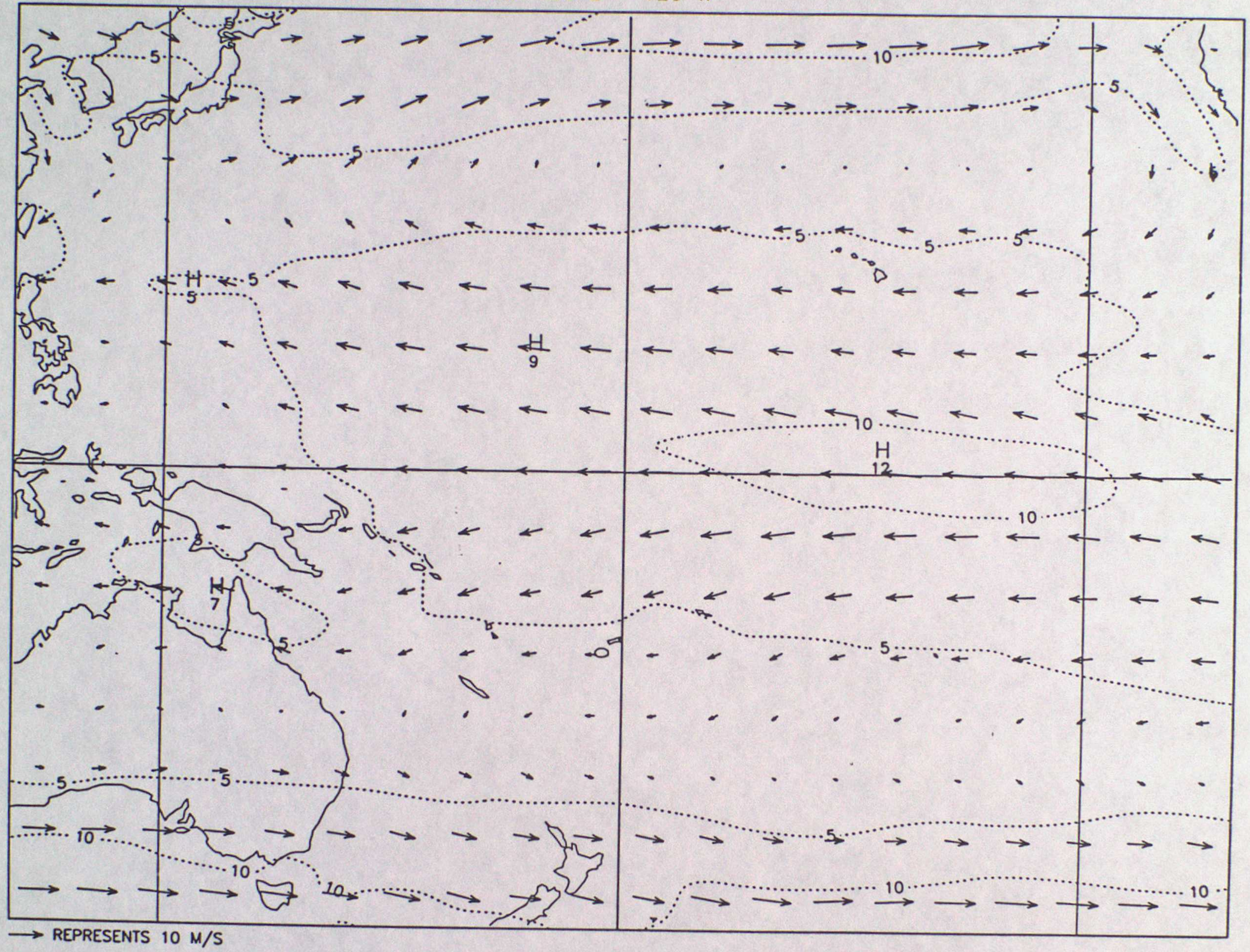
H 3
H 3
H 7
H 7
H 5
H 4
H 8
H 9
H 3
H 8
H 8
H 8
H 7
5
10
15
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
850 MBS.   BETWEEN LONGS. 120 E - 120 W


5
10
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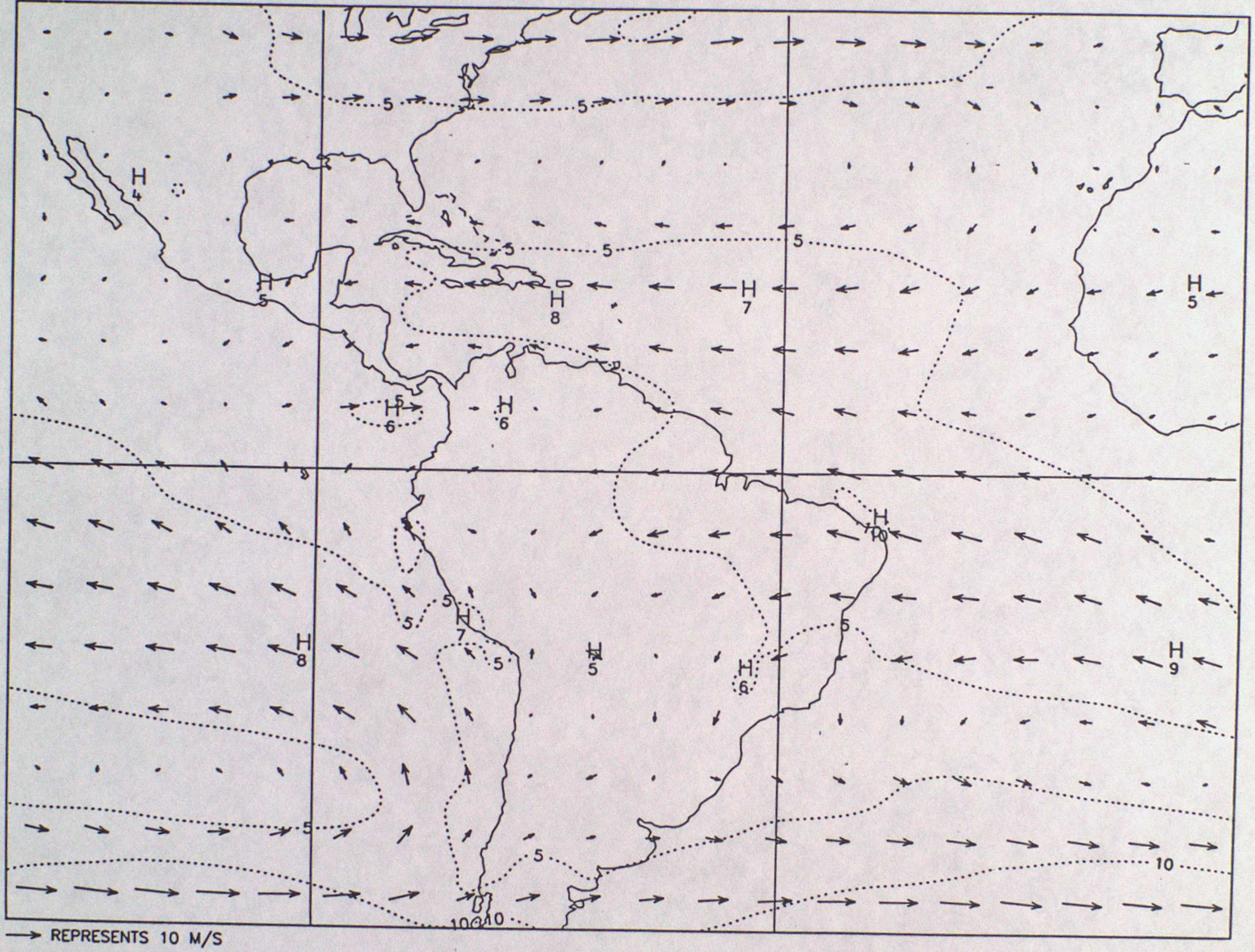
H
12
H
7
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1988
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
850 MBS.   BETWEEN LONGS. 120 W - 0 W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H 7
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H 10
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H 6
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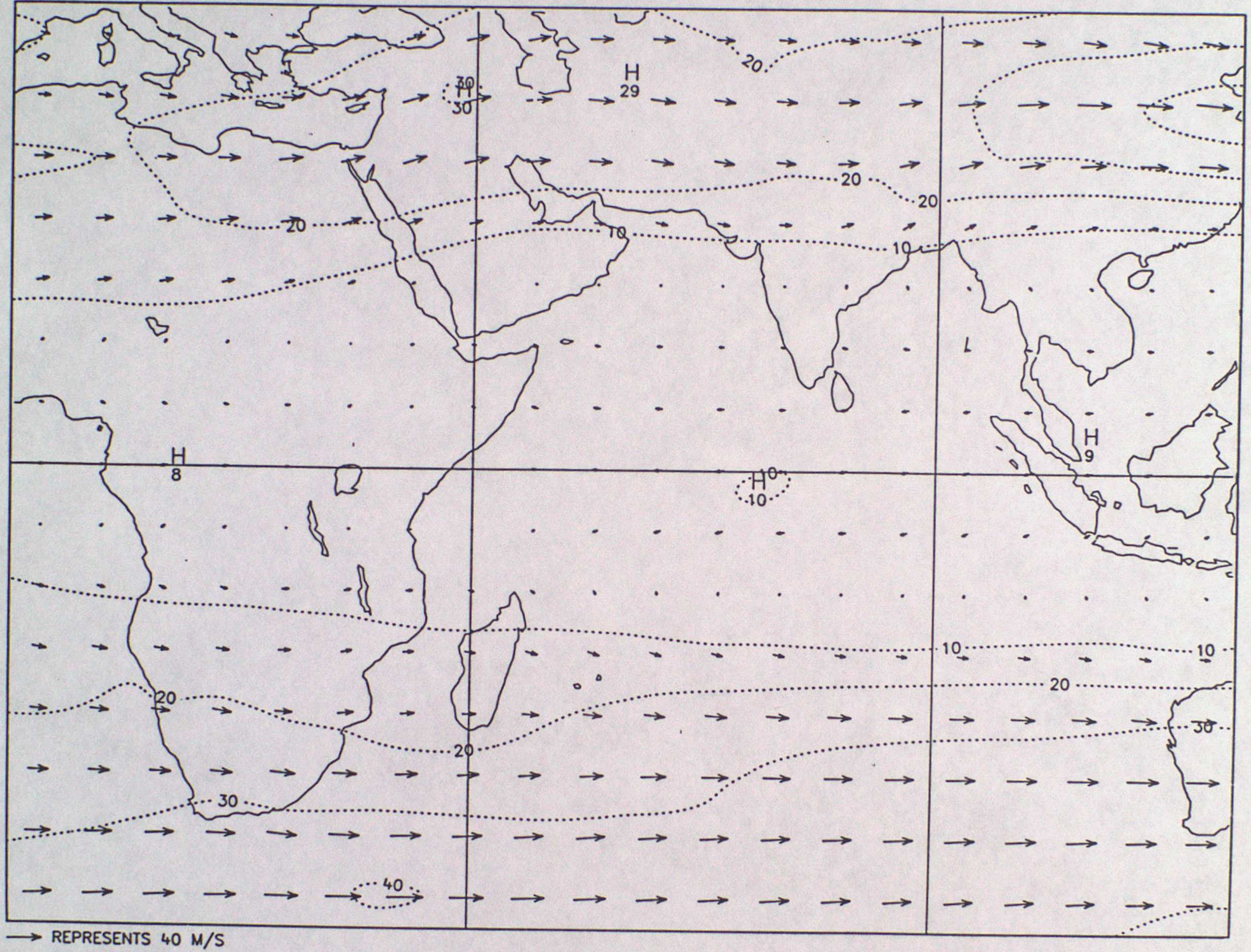
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1988
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
250 MBS.   BETWEEN LONGS. 0 E - 120 E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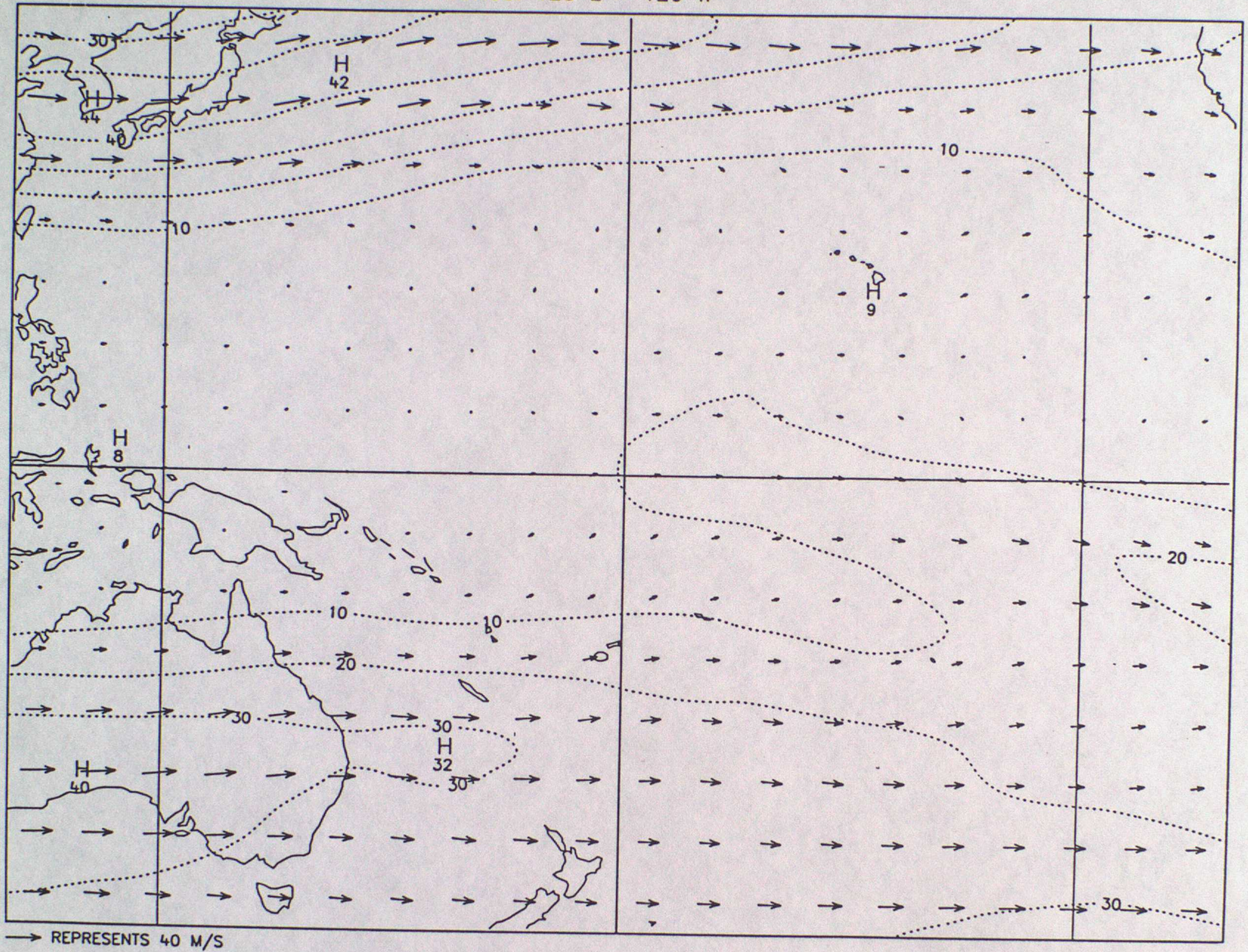
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. SEP/OCT/NOV1988
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
250 MBS. BETWEEN LONGS. 120 E - 120 W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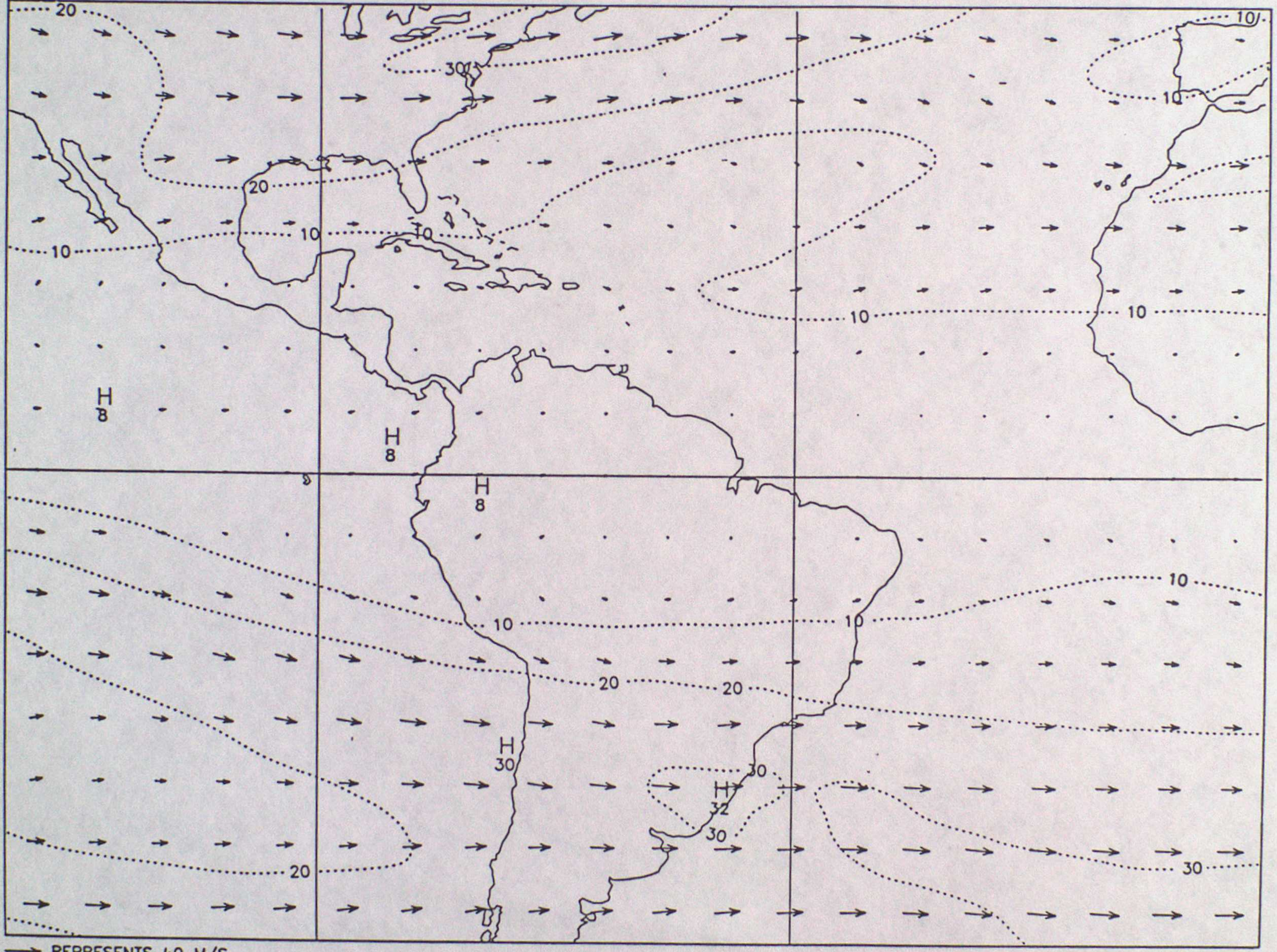
30

→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS.   SEP/OCT/NOV1988
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/9/1988 DAY 245 TO 12Z ON 30/11/1988 DAY 335
250 MBS.   BETWEEN LONGS. 120 W - 0 W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30

→ REPRESENTS 40 M/S